

The best preparation for flax is a green sward, nicely turned over in the fall, or early in the spring, and harrowed till the surface is perfectly mellow.

The quantity of seed will depend upon the object of culture. If raised for seed only, half a bushel to the acre will suffice; if for the lint only, two bushels are sometimes sown; if for both, an intermediate quantity will answer best. The less seed, within the limits mentioned, the greater will be the product in seed, and less and coarser the product in lint. The seed is always sown broadcast, and always covered with the harrow. The processes of pulling, threshing, &c. are understood by all. If the object is seed, the plants must be mature before they are pulled, which is indicated by the hardened state of the seed vessels, the yellow color of the stems, and the falling off of the leaves. When good flax is wanted, pull when the seed has its growth, but not maturity. When wanted for the finest fabrics, as cambries, &c., pull when it begins to flower. Sow early in May.

The product varies from 300 pounds to half a ton of dressed flax to the acre, and from six to eighteen bushels of seed.

The Royal Agricultural Society held its third annual meeting at Liverpool in July last, which lasted a week. A pavilion was prepared for the occasion, which accommodated 2,900 guests. In the cattle show yard were exhibited 500 head of stock, £2,800 were received at the door from visitors. The first prize of 30 sovereigns for the best short horned bull, was awarded to Thomas Bates, Esq., Kirk Levington. The largest long wooled Oxfordshire ram, was judged to weigh, if slaughtered, 87 lbs. per quarter, the best South Down ram, 45 to 50 lbs. per quarter. A very fine breed of pigs called Worcester or Tamworth pigs are preferred by some even to the Berkshires. Their characteristics are long carcass, good ham, small bone, short ears, fall coloured ground with black spots.

EDUCATION.

How is a nation to grow rich and powerful? Every one will answer—By cultivating and making productive what nature has given them. So long as their lands remain uncultivated, no matter how rich by nature, they are still no source of wealth; but when they bestow labor upon them, and begin to plough and sow the fertile earth, they then become a source of profit. Now, is it not precisely the same case with the natural powers of mind? So long as they remain uncultivated, are they not valueless? Nature gives, it is true, to the mind talent, but she does not give learning or skill; just as she gives to the soil fertility, but not wheat or corn. In both cases the labor of man must make them productive. Now, this labor applied to the mind, is what we call education, a word derived from the Latin, which means the *educing* or bringing forth the hidden powers of that to which it is applied. In the same sense also we use the word *cultivation*—we say, “cultivate the mind,” just as we say “cultivate the soil.”

From all this we conclude that a nation has two natural sources of wealth: one, the *soil* of the nation, and the other, the *mind* of the nation. So long as these remain *uncultivated*, they add little or nothing to wealth or power. Agriculture makes the one productive, education the other. Brought under cultivation, the soil brings forth wheat and corn and good grass, while the weeds and briars and poisonous plants are all rooted out; so *mind* brought under cultivation, brings forth skill, and learning, and sound knowledge, and good principles; while ignorance and prejudice, and bad passions, and evil habits, which are the weeds and briars and poisonous plants of the mind, are rooted out and destroyed.

An ignorant man, therefore, adds little or nothing to the wealth of the country, an educated man adds a great deal, an ignorant man is worth little in the market, his wages are low, because he has got no knowledge or skill to sell. Thus in a woollen factory a skillful workman may get \$10 or \$15 a week, while an unskilled workman must be content with \$2 or \$3. In the store of a counting house one clerk gets \$1,000 salary, because he understands book-keeping or the value of goods, while another who is ignorant, gets nothing but his board. We see this difference too when we look at nations. Thus China has ten times as many inhabitants

as England, but England has a hundred times as much skill; therefore England is the more powerful of the two, and frightens the government of China by a single ship of war.

Thus, too, among the nations of Europe, Prussia is more powerful and prosperous than any other of the same size on the continent, because all her people are educated, and that education is a *Christian* one, making them moral and industrious as well as skilful. If, then, the education of the people be necessary to the prosperity of the nation, it is the duty of the government or nation to provide for it; that is, to see that no child grows up in ignorance or vice, because that is *wasting* the productive capital of the country. This education too should be a *Christian* education, in order that children when they grow up should be honest, faithful, and temperate; for if a man be a liar or a drunkard his knowledge and skill is worth little to the country, because he will be neither trusted nor employed.

None know the value of education but those who have received it; it is therefore the duty of every child who has been well educated himself, to use his influence when he grows up to extend it to others, and if he be a legislator to make it national and universal in his country.—*M^r Vichar*.

OFFICES OF THE SKIN.

As an incitement to cleanliness, and to exercise in the sedentary and studious—as a precaution against sudden changes of temperature, close heated rooms and thin clothing—and with a general view of preserving health, we give the following extract from *The Principles of Physiology applied to the Preservation of Health*, by Dr. A. Combe:

Besides performing the mechanical office of a shield to the parts beneath, the skin is admirably fitted, by the great supply of blood which it receives, for its use as a secreting and excreting organ. The whole animal system is in a state of constant decay and renovation; and while the stomach and alimentary canal take in new materials, the skin forms one of the principal outlets or channels by which the old, altered, or useless particles are eliminated from the body. Every one knows that the skin perspires, and that checked perspiration is a powerful cause of disease and of death; but few have any just notion of the real extent and influence of this exhalation, such as we shall attempt to exhibit it. When the body is overheated by exercise in warm weather, a copious sweat soon breaks out, which, by carrying off the superfluous heat, produces an agreeable feeling of coolness and refreshment. This is the higher and more obvious degree of the function of exhalation; but, in the ordinary state, the skin is constantly giving out a large quantity of waste materials by what is called *insensible perspiration*, a process which is of great importance to the preservation of health, and which is called insensible, because the exhalation, being in the form of vapor, and carried off by the surrounding air, is invisible to the eye; but its presence may often be made manifest even to sight by the near approach of a dry cool mirror, on the surface of which it will soon be condensed so as to become visible. The following are the results of some experiments by Lavoisier:—

The largest quantity of insensible perspiration from the lungs and skin together amounted to thirty-two grains per minute; three ounces and a quarter per hour; or five pounds per day. Of this the cutaneous constituted two-thirds, or sixty ounces in twenty-four hours. The smallest quantity observed amounted to eleven grains per minute, or one pound eleven and a half ounces in twenty-four hours, of which the skin furnished about twenty ounces. The medium or average amount was eighteen grains a minute, of which eleven were from the skin, making in twenty-four hours about thirty-three ounces. When the extent of surface which the skin presents is considered, these results do not seem extravagant. But even admitting that there may be some unperceived source of fallacy in the experiments, and that the quantity is not so great as is here stated, still, after making every allowance, enough remains to demonstrate that exhalation is a very important function of the skin, and although the precise amount of perspiration may be disputed, still the greater number of observers agree that the cutaneous exhalation is more abundant than the united excretions of both bowels and kidneys; and that according as the weather becomes warmer or colder, the skin and kidneys alternate in proportions of work which they severally perform; most passing off by the skin in warm weather, and by the kidneys in cold, and vice versa. The quantity exhaled increases after meals, during sleep, in dry warm weather, and by friction or whatever stimulates the skin; and diminishes when digestion is impaired, and in a moist atmosphere.