

using, but just to clean them well and cut them up for use. Those who can afford it, may use blanching pots to put over their plants; it is thought by many that both the appearance and flowers are improved by means of them, and that a great saving in the quantity of sugar necessary to render them agreeable to the palate is obtained, as the leaf stalks when bleached are less harsh than when growing under the influence of light in open situations. We have grown rhubarb in various kinds of soils, but we find it to do best in rich light soil where the roots have liberty to grow and penetrate to a considerable depth. Rich liquid manure suits it well, and if much of the stagnant water that is allowed to accumulate near human dwellings, was to find its way to the rhubarb plantation, the owners would have sufficient for their own use, and a considerable quantity to sell to those who have no opportunity of growing it.—*Scotch Farmer for June.*

PLANTING CHESTNUTS.—At a late farmers' meeting in New York, Mr. Rice, speaking of planting chestnut timber, remarked, that he ploughed up a tract of unproductive hill-side, several years ago, and planted it with chestnuts, in rows four feet apart every way. The first sprouts coming up rather crooked and scrubby, he went over the field and cut them down close to the ground, which caused new shoots to spring up straight and vigorous. The trees are very thrifty, completely shade the ground, and grow more and more rapidly as the soil becomes strengthened by the annual deposit of leaves. So well satisfied is he with the experiment, that he is now placing other worthless lands in a similar course of improvement.

ANSWERS TO INQUIRIES.

Are Gooseberries and Currants best grown as bushes or with single stems?

We prefer the former, on the whole, as less trouble, and being perhaps rather harder. For the amateur, the latter mode is preferable, as affording neater, more manageable bushes—much better adapted to thorough pruning and cultivation. In pruning, a judicious trimming out of both old and new wood, is all that is necessary. The Gooseberry requires the most trimming.

How to raise tree Currants, or bushes that will not sprout from the roots:—

This is done by cutting out all the eyes or buds from that portion of the cuttings or layers, that is below the surface of the ground, and up as high above ground as you wish to have the bodies.—*Wis. Far.*

DEFINITIONS,

FROM A LATE EDITION OF THE FARMER'S VOCABULARY.

PROFITABLE STOCK.—A man's dog caught among the last half of his neighbour's sheep!

LABOUR SAVING MACHINE.—A pair of legs which, when put in motion, are wont to take their owner to that ubiquitous resting-place a Tavern.

CHEATING HIS CREDITORS.—A poor man running away from a family of six lazy, fashionable daughters.

CHESS.—A vile weed of common occurrence, but very uncertain origin—some supposing it natural and others miraculous. The one party claim, that according to the heathen notion of transmutation, (we beg pardon, transmigration), it comes from the soul of the

wheat after the death of the body; while the other most dementedly insist that it comes from the seed!!

POVERTY.—A condition hitherto supposed favourable to health—but found of late to predispose strength to fatal attacks of the "yellow fever."

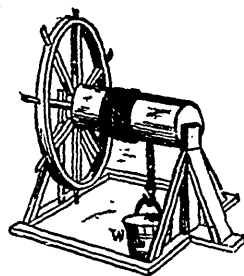
General Science and Miscellany.

NATURAL PHILOSOPHY.

No VI.

THE WHEEL AND AXLE.

The third mechanical power is the *wheel and axle*. Let us suppose the weight w to be a bucket of water in a well, which is to be raised by winding the rope, to which it is attached, round the axle; and if this be done without a wheel to turn the axle, no mechanical assistance is received. The axle without a wheel is as impotent as a single fixed pulley, or lever, whose fulcrum is in the centre; but add the wheel to the axle, and you will immediately find the bucket is raised with much less difficulty. The axle acts the part of the shorter arm of the lever, the wheel that of the longer arm. The velocity of the circumference of the wheel is as much greater than that of the axle, as it is further from the centre of motion; for the wheel describes a large circle in the same space of time that the axle describes a small one, therefore the power is increased in the same proportion as the circumference of the wheel is greater than that of the axle. If the velocity of the wheel were twelve times greater than that of the axle, a power nearly twelve times less than the weight of the bucket would be able to raise it.



THE INCLINED PLANE.

The fourth mechanical power is the *inclined plane*. This is nothing more than a slope, or declivity, frequently used to facilitate the drawing up of weights. It is not difficult to understand, that a weight may with much greater ease be drawn up a slope than it can be raised the same height perpendicularly. But in this, as



well as the other mechanical powers, the facility is purchased by a loss of time; for the weight, instead of moving directly from A to C , must move from B to C , and as the height of the plane is to its length, so is the power to the weight which it is intended to raise. Thus, if a pulley be fixed at F , so that the string from F to w may be parallel to BC , and a string fixed to the weight w were connected with another weight F : then if F bear the same proportion to w that the line AC does to the line BC , the two weights will balance each other, &