MESSENGER AND VISITOR.

The Farm.

Control of Soil Motsture.

34.

Ploughing, which is usually the first operation upon the soil, should be thoroughly and properly done, for aftercultivation can never make up for defects in this undamental operation. The soil should be moist enough so that as the furrow slice bends it will break and crumble, leaving it in a pulverized condition, rather than in clods or lumps. The amount of moisture in the soil is a very important factor in ploughing, and also in harrowing and aftercultivation.

The moisture in the layer of agricultural soil can be quite largely controlled by proper methods of tillage. If we wish to dry sod land which has been wet by heavy rains after ploughing, we can by rolling re-establish to a large extent capillary attraction and bring the water to the surface for evaporation. The process of drying can be checked at the proper stage by thoroughly pulverizing the upper portion of the soil, which will break the connection of the soil particles and act as a mulch. This matter of being able to control the moisture content of the soil to a considerable degree is worthy of careful consideration, as it has much influence upon the temperature and mechanical condition of the soil. Especially in seasons of drouth it mean the success or failure of the crop.

The difference between cultivating land one inch in depth and three inches in depth in its different effects upon the moisture content of the soil is very considerable, as is also the effect of the styles of tools used in the work. The tool making wide, deep grooves and ridges increases the rate of evaporation, while one which pulverizes and makes the soil very fine will decrease the rate of evaporation. The first gives more surface to the air, and conse quently the moisture evaporates more rapidly. The other not only more com-pletely breaks the capillary attraction by which the water rises to the surface, but exposes less of the soil to the air. (J. A. Tillinghast, in American Agriculturist.

* * * The Duty of the Soil-

The duty which the soil has to perform for the plant is twofold-to feed it and supply it with water. The former is done through the instrumentality of the latter, by which the food held in the earth is dissolved and conveyed to stem, foliage and The plant absorbs water mainly fruit. through its roots; its leaves may take in a little after showers or a fall of dew, but when the sun shines or the air is dry they are more often losing it by evaporation. This, however, if the soil is sufficiently moist, is really favorable to growth. The loss of water from the leaf surface produces an upward stream of moisture from the roots; this brings with it in solution the constituents needed for the development of the plant, and so the greater the evaporation the more rapid the transference of nutriment from the soil, and the greater the growth.

Plants sometimes show themselves less dependent than might be expected on the quantity of the rainfall. Excess is bad, and no crop thrives well on an ill drained, sodden soil; but so, also, is defect, though often much water makes its way upward in certain soils by capillary action. apart from this, if the soil contains the requisit constituents a good crop may be yielded after a very small rainfall, In this case the solution present in the earth is comparatively concentrated, but when much rain has fallen the reverse happens. Just as for a man a gill of strong soup may be better than a gallon of weak broth, so a plant may thrive in a rather arid climate. Some of the Western States of North America often afford illustrations of this. There the rainfall is small-from thirteen to eighteen inches a year—at most, barely three-quarters of what is received in the London area; and besides that, most of it falls in the winter, before the growth of the crop has commenced. The water level in the ground beneath is quite out of reach,

ty.

for it is, at the least, twenty feet from the for its, at the least, twenty teet itom the surface. Yet good crops of wheat are raised, since the soil is rich in soluble mineral saits, which, directly or indirectly. are nutritious to the grain. But a good supply of water is necessary if really fine crops are to be obtained.--(London Standard. * * *

Seeding Grass on Inverted Sod-

I have practised this system (seeding grass on inverted sod) more or less for learly thirty years, and believe there is no system that will produce more hay with a given amount of manure. I have been in the habit of turving over the sod on reason-I have been in ably moist ground in August, applying to each acre thirty good loads of stable manure that has been well cared for in the barn cellar. After this I harrow fine and sow eight quarts of timothy and sixteen quarts of redtop seed to the acre. I have usually top dressed after cropping one year and find in this way I can get as much hay a will stand on the ground without getting down.

I have tried many other ways and have found none that will do as well for me. This time of seeding is reasonabl - sure, perhaps as sure as any season, without it perhaps as sure as any season, without it is early spring. In the last few years I have fitted land ready for seed any time up to the freezing season in November. Then as soon as the snow is off in the spring sow on the seed, adding a little clover. I have never failed in this way to get a catch. Weeds may trouble a little the first crop, but not after.—(New-Eng-land Homestead.

* * * Pare Bred Poultry.

I think if farmers would once keep some kind of pure bred poultry and once feel the satisfaction their possession gives they never would return to mixed flocks. never would return to mixed flocks. Choose any kind you wish. Any pure bred flock is handsome if kept pure. I have always preferred Light Brahmas. A flock of 50 will make as big a show on the farm with their white plumage and lovely black markings as 200 mixed fouls. Yes; they make as good a show on the table, too, as four times their number of most chickens.

too, as four times their number of most chickens. But no bird ever gave me so much satis-faction as the White Holland turkey. I have bred them for 12 miles around, Continued the for a system. People are directed to our farm for 12 miles around, directed to our farm for 12 miles around, (Go till you see a lot of pure white turkeys.' They never get to be as large as the brouze, but they mature early and bring more per pound in the market than the coarser meated varieties. Best of all, they are "keepers at home." My first venture was a white gobbler with bronze hens. They made a fine cross of pretty turkeys beauti-fully speckled that one's neighbors could not claim. I would rather here a pair of Toulouse

not claim. I would rather have a pair of Toulouse geese for pets than any birds I know, they are so bright and companionable. They can almost talk. And when the flock move along near the ground, their great wings beating the air—they are two heavy to fly —the noise is like a train of cars in motion. —Mrs. B. J. McClure.

+ + ... One More Unfortunate

Wanted the DIAMOND DYES but was induced by her

dealer to try another make.

A lady writing from a small town in New runswick to the proprietors of Diamond

Brunswicz and program and a start of the program and the progr and they have given me entire satisfaction. A few weeks ago our merchant was out of a color I wanted in the Diamond Dyes and strongly recommended another make he was selling. I bought the packet with many doubts as to its worth. I made an effort to dye an old cream colored opera shawl with the new dye. The ghasly result almost drove me mad. There was not a semblance of any decided color. Now I am obliged to dye it black, and will do the work with the Diamond Dyes. No more poor mudy dyes for me while I can send to you for the reliable Diamond Dyes."



Does Sleep not bring Refreshment?

Do you feel wretched, mean and miser able in the mornings-as tired as when you went to bed? It's a serious condition -too serious to neglect, and unless you have the heart and nervous system strengthened and the blood enriched by have



Milburn's Heart and Nerve Pills, collapse is almost certain to ensure. Mr. Fred. H. Graham, a we known young man de Barrie, Ont., says -- "I have had a great deal of trouble with my heart for four years. I was easily agitated and my ex-citement caused myheart to throb violently. I had diziness and shortness of breath, and often arose in the mornings feeling as tirred as when I went to bed. I was terribly nervous. Milburn's Heart and Nerve Pills have done wonders for me, They have restored my heart to regular healthy action, giving me back sound restful seep, and making my nervous sys-tem strong and vigorous." Milburn's Heart and Nerve Pills are got. a box or g for \$1.25 at all druggists or by mil. The T. Milburn Co., Limited, To-ronto, Ont.

Notice of Sale.

o the Heirs, Executors and Administry of Samuel Mailery, late of the Paris Simonds, in the City and County of 8 John, and Province of New Brunaw Farmer, deceased, and to Maria E., his and to all others whom it doth, can or concern:

Farmer, deceased, and to Maria E., his wile and to all others whom it doth, can or ma concern: Take notice that there will be sold by Publi lauction, at Chubb's Corner (so called) in the Other and the sold province acrossed of the Saint John and Province acrossed, o Saint John and Province acrossed and the pipe or park of land ditude, lying an being, parily in the Parish of Upham in the Conciv of Kings, and parily in the Parish o Saint John, known and distinguined as lo number four (4) in the Grant under the Gress Seel of the said Province to Archibak Rutildge, and others, containing two hundres acrossed of the said Province to Archibak Rutildge, and others, containing two hundres are more by lands owned by Andrew Rud-dick, and known as the Senull Farm, and ou the East by land owned by Andrew Rud-dick, and known as the Senull Farm, and ou the Saint Martuns, with all and singular, the buildings, improvements, privileges and of the said will be matiunder and by mappurteamees to the said premises belong of the Baytist Convention of the Maritime Provinces of the Other part, dated the fra-day of April, A. D. 1822, and duly registered in the offices of the Registrars of Deeds in and of the Courles of Kings and the foreign Mission Board of the Baytist Convention of the Maritime Provinces of the other part, dated the first day of April, A. D. 1822, and duly registered in the offices of the Registrars of Deeds in and of the Courles of Kings and the foreign Mission Board of the Baytist Convention of the Maritime Provinces of the other part, dated the first day of April, A. D. 1822, and duly registered in the offices of the Registrars of Deeds in and for the Courles of Kings and the torothy of Dook Z. No. 4, pages did, 616, 617, and of the Baytist Convention of the Maritime Provinces of the inventy-first day of June, A. D. 1892, respectively, reiserence being there-unot hack will more tally and at large appea

A. D. IBBRANDING Second by the said Inucease default having been made in default having been made in Mortgage. Dated the first day of August, A. D. 1900. The Foreign Mission Board of the Baptist Con-The Foreign Mission Board of the Baptist Con-Mortgage. J. W. MANNING, Secretary.



ese and Japanese formerly employed.