

gregate supply must be larger than farmers who have never studied solar evaporation are apt to believe.

"With deep tilth and suitable underdrains, where the soil is compact, very little surface draining will ever be required. If mellowing land four inches deep will enable it to absorb a third of all the water that falls in ordinary rain, should not its tillage twelve inches in depth give it power to imbibe three times more, or the whole of the water? The earth, acting as a filterer, all water passed into the underdrains, three feet below the surface, would be as clear as that from the purest springs. As logs and brush in mill-dams, when constantly wet and partially excluded from the air, last for ages, so poles and brush, placed three feet and upwards underground, will doubtless last half a century or more."

HESSIAN FLY.

The same Editor says, on this subject, "That the destroying insect is becoming more and more abundant over the whole wheat districts. They are extremely local, and, when once colonized, do not emigrate far, when they can find the proper subsistence near home. A farmer in Pennsylvania has almost entirely prevented their depredations, by burning over the stubble, directly after cutting his wheat, and before they had changed from a *larva* to a winged state; while fields in his immediate neighbourhood were destroyed by not employing this precaution."

LUCERNE.

"From what we have seen of this plant, often called 'French Clover,' we think its culture for soiling can be made profitable. Its seeds should be planted in drills, by a machine. We have traced its roots thirty-eight inches into the ground. In permeable soils, of fair strength, it grows luxuriously. Deep culture, gypsum, lime, and leached ashes, well mixed, and drilled in with the seed, are recommended by us. If the soil is then, or poor, stable manure should not be omitted. Seed should be sown or planted early in the Spring. Having deep roots, Lucerne stands dry weather better than almost any other plant."

CORN SHELLERS.

Two engravings of machines for shelling Indian corn are given in the same paper, and the following description, furnished by Messrs. Ruggles, Nourse, and Mason, of Boston, the manufacturers, will enable the reader to form a pretty correct idea of the machine and its capacity:—

"It consists of a horizontal toothed cylinder, six feet long and one foot two inches in diameter. The ears of corn, in the operation, are confined to a part of the upper and rising side of this cylinder, by means of a cast-iron concave, extending the whole length of the machine, and being shovelled or let into the machine at one end, they are driven through, and the cobs discharged at the opposite end, while the grain falls below, being admitted on either side of the cylinder. The operation is governed by elevating or depressing the discharge end, which causes the machine to discharge the cobs fast or slow, and of course operates more or less upon them; thus securing to the operator the power of finishing his work.

"This machine is capable of shelling two hundred bushels of ears per hour. Upwards of one hundred of them have been already sold, and they may be seen at work in New York, New Orleans, and other Northern and Southern cities and towns, where they have given great satisfaction. They are very simple, and strong in their construction. Price, \$30."

TWELVE-ROWED BLOOD-RED WHEAT.

A new variety of wheat, with this appellation, has lately been introduced into England. It produces a head six inches long and one inch broad, and has twelve rows of kernels. It is very productive, eighty bushels having been grown per acre. A quantity of eighty bushels of this variety of wheat is on its way to the United States.

WIRE-WORMS.

A Correspondent, in the same paper, asks questions regarding the most effectual means of getting rid of these destructive pests, to which the Editor purposes to reply in an early number. From a former Correspondent, it appears that two successive crops of buckwheat have generally proved efficient in destroying the wire-worm, on land previously overrun with them. As fall ploughing would doubtless prove of great benefit, would not land thus ploughed, and sown with buckwheat about the