

ceeded in our practical experiment, and the wheat produced is of the finest quality. The straw was more than six feet high, and in the ears were 50, 60 and even 80 grains of wheat of full development, the admiration of all who saw them, and particularly those which grew upon the pane of glass, and which were quite as healthy and as large as those which grew upon the common earth. It must be observed also that there was not the smallest particle of earth upon the glass, and that the plants were left entirely to themselves, without being watered or attended to in any way whatever from the time of sowing to the time of reaping.

The cause of this success, they think, may be explained in the following manner:

"Straw being a bad conductor of heat, and a good conductor of electricity, maintains the root of the plant in a medium temperature, and prevents the earth from being deprived entirely of moisture. The moisture of the earth, or the substratum, being continual, facilitates the gradual and constant absorption of carbonic acid gas from the surrounding atmosphere, and hydrogen and carbon, the chief elements of nourishment to vegetables, are thus economized in regular supplies where they are constantly required, and pass into combination with oxygen from the roots up to the stems and branches of the plants in which they are assimilated, and the oxygen throws off in exhalation from the leaves. The straw decays but slowly, and thus furnishes its substance by degrees to the young plant in due progression and proportion, (such as the silicious ingredient, for instance, of the pod or capsule) so that the decomposition of the straw corresponds to the four phases of fermentation, in progressing from the *saccharine* to the *alcoholic*, the *acid* and the *putrid*, analogous to those of *infancy*, *budding youth*, and *seeding* of the plant.

"We observe that our blades of wheat have but a very few roots, and those are short and hard, something like a bird's claw; and this agrees with the remarks of Mons. Raspail, who states that the most healthy plants in ordinary vegetation have the least exuberance of roots and fibres.

"Another important observation, also, is, that weeds and parasitical vegetation are prevented by this method, for the straw chokes every other plant but that of its own seed. Many other interesting observations might be made on these experiments, but we refrain, at present, from obtruding on your readers; but if any of them wish for further information on the subject, we shall willingly afford them every facility. The importance of the general result will easily become apparent without further comment, and a revolution in the present modes of agricultural labor is a necessary consequence of this discovery. No tillage will now be required, nor any artificial stimulants in manure and other more or less expensive combinations with regard to soil and culture. In fact, it would be tedious to enumerate the various advantages that may result in practice from this casual experiment, and therefore, we proclaim it simply to the world that all may profit by it."

As this experiment can be easily tried, we hope some of our farmers will put it to the test, and communicate the result. We shall certainly try it on a small seven by nine lot of ground which is the largest that is vouchsafed to a dweller in the city.—*N. Y. Evening Post*.

#### SIGNS OF A POOR FARMER.

He grazes his moving land late in the spring. Some of his cows are much past their prime. He neglects to keep the dung and ground from the silos of his building. He sows and plants his land till it is exhausted, before he thinks of manuring. He keeps too much stock, and many of them are unruly. He has a place for nothing, and nothing in its place.

weather, or in an evening. You will often, perhaps, hear of his being in the bar-room, talking of hard times. Although he has been on a piece of land twenty years, ask him for grafted apples, and he will tell you he could not raise them for he never had any luck. His indolence and carelessness subject him to many accidents. He loses his cider for want of a hoop. His plough breaks in his hurry to put in his seed in season, because it was not housed; and in harvest, when he is at work on a distant part of his farm, the hogs break into his garden, for want of a small repair in his fence. He always feels in a hurry, yet in his busiest day he will stop and talk till he has wearied your patience. He is seldom neat in his person, and generally late at public worship. His children are late at school, and their books are torn and dirty. He has no enterprise, and is sure to have no money, or if he must have it, makes great sacrifices to raise it; and as he is slack in his payments, and buys altogether on credit, he purchases every thing at a dear rate. You will see the smoke come out of his chimney long after day-light in winter. His horse-stable is not daily cleansed, nor his horse curried. Boards, shingles and clap-boards, are to be seen off his buildings, month after month, without being replaced, and his windows are full of rags. He feeds his hogs and horses with the whole grain. If the lambs die, or the wool falls off the sheep, he does not think it is for want of care or food. He is generally a great borrower, and seldom returns the thing borrowed. He is a poor husband, a poor father, a poor citizen, and a poor Christian.—*Balt. Amer.*

#### FUNGUS VEGETATION IN WINE CELLARS.—

A very remarkable kind of fungus vegetation is known to make its appearance in wine cellars, the substance which supplies the growth being the vapor from the wine in the casks or bottles. If the cellar be airy and dry the vapor escapes, and no fungus vegetation is manifested, but if it be somewhat damp, and excluded from air and light, the fungus growth becomes at once apparent. Round every cork a mould-like vegetation will exhibit itself, and the vapor from the casks rising to the vaulted roof, will there afford nourishment to great festoons and waving banners of fungi. In the wine vaults of the London Docks this kind of vinous fungi hangs like dark woolly clouds from the roof, completely shrouding the brick arches from observation. On a small piece being torn off and applied to the flame of a candle, it burns like a piece of tinder. Should wine escape from a cask in a moist or ill ventilated cellar, it will altogether resolve itself into fungi of a substantial kind. A circumstance of this nature once came under the notice of Sir Joseph Banks. Having a cask of wine rather too sweet for immediate use, he ordered that it should be placed in a cellar to ripen. At the end of three years he directed his butler to ascertain the state of the wine; when, on attempting to open the cellar he could not effect it in consequence of some powerful stacle. The door was therefore cut down, when the cellar was found to be completely filled with a firm fungous vegetable production, so substantial as to require an axe for its removal. This appeared to have grown from, or to have been nourished by, the decomposed particles of the wine; the cask being empty and buoyed up to the ceiling, where it was supported by the surface of the fungus.

**TOBACCO.**—We congratulate our citizens upon the great accession to our resources just beginning to develop itself. Our readers generally, we presume, are not aware that tobacco is now grown to a considerable extent in Northern Illinois. This, we believe, is its second season. The counties of Winnebago and Ogle have the credit of adding tobacco to the other great staples of the Northern portion of the State. Large

ville in the former county. Mr. Martin, lately of Alabama, now residing about two miles from Rockford, recently cut a leaf from one of his stalks measuring three feet in length by two in breadth. Most of the farmers in the above mentioned counties have engaged in the cultivation of this crop. From two to ten acres is the quantity of land appropriated by those who raise it to its culture. So far it has produced from one thousand five hundred to two thousand pounds to the acre. The nett profits on each acre are calculated at from seventy to one hundred dollars.—Much of the tobacco raised in these counties has been already harvested and is now drying under sheds which have been erected for that purpose. With regard to our soil as adapted to its cultivation, both are declared to be as suitable as any portion of the Union. It grows luxuriantly as may be readily inferred from the size of the leaf to which we have alluded. Southern men engaged in the cultivation of this tobacco say that our soil and climate are decidedly favorable to its growth. With regard to its quality it may be considered good, to say the least. Cigars have already been manufactured from it, and a friend of ours who is both a lover and judge of the weed says they are superior to the common American article. We anticipate with no small degree of pride the time when we shall add Tobacco to our "Chicago Market."—*Chicago American*.

**ENGLISH COTTON SPINNER IN THE SOUTH OF FRANCE.**—Amongst other scenes of interest in the neighborhood of Pau, I must not forget one of a very humble and unobtrusive nature.

It was the residence of John Haydock, a 'canny' old Englishman, who had been a cotton spinner at Blackburn, in Lancashire; and who having established himself at Rouen during the peace of Amiens, has been a resident in France ever since. His business, it is said, answered sufficiently well for him at Rouen; but family considerations inducing him to leave that place, he bought a little property by the side of a beautiful stream at Jurancon, in the vain hope of establishing a cotton mill upon its banks. He is a most ingenious man, and an excellent mechanic; but there being no trade in this place, all his curious inventions, of which he has a great number, are of little use; and it is to be feared his circumstances are sinking rather low. He has, however, a comfortable cottage and a luxuriant garden, of which he is very proud. While watching his cheerful, honest English face, and listening to his Lancashire dialect, as pure as if he had left Blackburn but a week ago, it brought back to my memory a well remembered scene; and when he showed us his gooseberry bushes, here very rare, among his vines and peaches, and told us they bore a 'terrible sight of fruit,' I could hardly believe I was so far distant from some of the English cottage gardens which I had known in early life. The workshop of this ingenious man is a real curiosity. Amongst a variety of his own inventions and other specimens of art, he showed us some stamps of his own making for printing Spanish cards, by which he has obtained a trifling profit; and though a strange occupation for an English cotton spinner, it was evident from the elegance of their design, that the man was fitted for a higher fate than to dwindle out his days in poverty. His wife, who is a Roman Catholic, says that he keeps his bible hid on a shelf, lest it should be discovered by the priests; and that every Sunday afternoon he locks himself in his bedroom to read it. There is much in the situation of this man to render him interesting to the English residents at Pau. The walk to his dwelling occupies but half an hour, and its situation is one of the most picturesque in the neighborhood. It stands at the foot of a range of steep hills, whose sides are covered with vineyards, and on the banks of one of those fertilizing streams which supply the air with freshness and the earth with verdure.—*Summer and Winter*