

rosch a whistling sound is heard in the air, like a violent thunder-storm; the sun, if at the time, is darkened, and the temperature becomes 5 or 10 deg. Reaumer cooler, as warmth of the sun is prevented from penetrating the mass. The swarm takes from twelve to fifteen hours to pass over, and the enormous quantity of this fearful scourge in the atmosphere, as far as the eye can reach, makes an overpowering impression on the human mind, so that a person feels an inward depressing influence, such as difficult breathing, and inability to shake off the horror-stricken nervous sensation. Business is suspended. If these plagues once reached the ground, the earth is for several miles in extent a foot deep at least with them, and they do not ascend until they have consumed every particle of grain, pulse, grass, &c., the soil then looks as if it had been laid waste by fire. These insects can only be got rid of when they are not tired and are able to fly, when a great noise is made, and several thousands of persons set to work together; indeed, it often happens that the Government sends two or three regiments of soldiers to assist the farmers; if, however, the swarms are tired so enormous that they cover the fields a foot or more, then it is not in the power of human beings to prevent their committing sad deeds, and when killed and left on the ground, would a swarm be driven into the sea and towards washed ashore, the stench is past imagining, and generally is followed by a pestilential fever. According to a map drawn whilst the Emperor-General of Odessa made a tour of inspection early last May, about 75 Russian square miles were covered with the eggs of these insects. The fields surrounding the small Polish town of Omaszow, no less than 625 baskets of living locusts (each basket containing about 6,400, and gornats of 15,600 eggs each, making in all four million locusts and nine million eggs) delivered to the burgomaster of the place.

BUSINESS QUALITIES OF THE FARMER.—The thoughtful farmer may find a hint of value in the saying, from Chas. Betts, in the *Ohio Farmer*.

If the farmer needs any two qualities more than others, as business qualities, it is *forecasting*—qualities which will enable him to look forward into the coming years, and lay his plans, and then with a vigor which will overcome obstacles, push them into execution. In any business where investments are made to-day and are reaped to-morrow, reliance is chiefly on ready capital, and the circumstances of the hour. But the case with the farmer is different. He must exercise forethought; his operations must run through the year, and on through a series of years; and, to be successful, many collateral influences to weigh, and the various operations a complication of influences which require for their proper adjustment

and direction, the highest skill, judgment and forethought. His success, like one of those mysterious and almost stranger planets, takes ever a varying course, and is sometimes lost to view. But if he is a true Le Verrier, he will count, and weigh, and demonstrate the bearing of all controlling causes, and, with master ability, usher in the grand result."

SHADE TREES IN PASTURE.—Upon the first subject you mention, viz: "should shade trees be allowed in pasture fields?" there may be, perhaps two opinions, but the one most generally held is against shade, unless it is in the immediate vicinity of water.

The most important object to be attained in grazing, next to good and plentiful grass, is that the cattle shall be free from any disturbance whatever, and that they shall take as little exercise as possible. In the first place, then, if the shade trees are at any distance from the water, the cattle will collect under them, and in hot weather will often stand there until their drinking time arrives, and then run in a body to the water, where they will push and fight for the first drink, and then run back again to the shade. I have seen them do this often. Then again, one of the greatest enemies to fat cattle is the biting-fly, which loves the shade as well as the cattle, and when the latter are huddled together under the shade, they suffer a great deal more annoyance and worrying than they do in the open field. I have seen bullocks smart enough to leave the shade and stand in the sun all day, and they seemed to thrive better by it. If, however, a man has a stream running through his field, where the cattle can stand over their knees in water, let him by all means have abundant shade on the banks. His cattle can then stand, their legs protected, and whisk the water over their backs with their tails, and bid defiance to the flies.—*R. W. Downman in American Farmer*.

APPLES FOR STOCK.—All kinds of stock relish apples during the winter months, almost as much as do children. They will eat them with avidity, and in preference to any grain or roots fed them at the same time. An experiment of feeding stock with, say, half a peck to a horse or cow daily, will soon satisfy any person that they conduce both to the health and spirit of the animal.—*Ohio Farmer*.

SALT, OR LIME AND SALT, TO PREVENT GRAIN CROPS FROM LODGING.—In looking over our foreign exchanges we not unfrequently meet with passages like the following, from which we infer that the power of salt to strengthen the straw of grain crops, even when the growth has been rendered very luxuriant by guano or other nitrogenous manures, has been often tested, and is now well established: "When the crop is liable to lodge from a weakness in the straw, three cwt. of salt should be mixed with the