season, and adapted to a moist climate. — *F. G, in Country Gentleman.*

Special Fertilisers.

There is an opinion quite prevalent among farmers that special fertilizers act as a stimulant upon the soil, bring out its latest energies and leave it after a while poorer than before. No opinion could be more erroneous than to suppose that there is any such a thing as stimulating the soil. Stimulants owe their effects to their action upon the nervous system, bringing out the latent or reserved power of the body, sometimes exhausting it to that extent as to destroy life; but the soil has no nervous system, and plants receive no food through stimulation. A certain amount of heat and moisture does sometimes seem to stimulate growth—it would be better to say accelerate it. Heat and moisture hasten the preparation of plant food; they accelerate the decomposition of the minerals in the soil and quicken the flow of the sap, and heat causes the water of the sap to evaporate faster through the leaves. The more rapidly the plant grows the faster it draws the elements of fertility from the soil, and thus, by making a rapid growth, it hastens the exhaustion of the soil. The difficulty with which we in New England have to contend is this: We can draw the fertilizing elements from the soil three times faster than the earth can give them up.

There are few countries where vegetable growth is more rapid than in New England. In six weeks, winter rye will grow so that a quarter of an acre will furnish feed sufficient for ten cows for a fortnight. As soon as that is taken off corn can be planted, and by the first of August from twenty to thirty or forty tons to the acre of green fodder can be taken off. Again, on the same piece of land barley can be sown with winter rye, and in October another crop of green fodder can be taken off. Thus the climate produces three crops in a season, but the soil unaided would not produce one of these crops, and so, knowing the capacity of climate, we go to work to make the soil equal to it. Our first effort is to apply our barnyard manure, but here we find the quantity to be unequal to the task, and man's inventive genius is taxed to produce other material to bring about the desired result. Guano was largely used, and found to be what was desired, but after a few applications it was found that the soil could not produce the required crops even with this assistance, and it was charged with having stimulated the soil, and thus exhausting it. The fertilizing elements contained in the guano were exceedingly soluble, and the plants fed rapidly upon them, but guano did not contain all the elements required by the plant, and these were rapidly removed from the soil. This being left exhausted of one or two elements, it was the same as though all had been removed, and it was barren even though guano was added to it.

Again, the charge of exhaustion was urged through stimulation, but it was really exhaustion of material, because the different elements were not duly proportioned to the wants of the plants. Then superphosphate was tried. This contained but one leading element, although two others were present, sulphate of lime and nitrogen in the form of ammonia. These produced large crops so long as other elements of food lasted in the soil, but when these were expended, then again the cry went up: "Exhaustion through stimulation." The only stimulant was the climate, which used the materials faster than they were supplied. The best way to furnish all the elements necessary for the plants according to the capacity of the climate for producing growth, is to use large amounts of decayed vegetable matter, either in the form of barnyard manure or some other material, then use in connection phosphate of lime and potash, and to this add a great amount of culture. Were we to plow twice where we now plow but once, and harrow twice or three times, and use the cultivator as much as now, we should greatly accelerate nature in furnishing material from her laboratory. We must bear in mind that while we have a very sterile soil, on account of decomposition going on so slowly, we have one of the most productive climates in the world. While Great Britain has a much more fertile soil, much better cultivated and more highly manured, yet her climate is not nearly equal to ours, in productive capacity.

We may have an idea of the climate in some sections of England from the fact that at Oakworth House they cannot produce peas before August, in the open air, and early Mohawk beans have to be grown under glass. From this we may learn something of what they have to contend with on account of the climate, while our contention is with the soil, both of which tend to develop the energies of those who live by its cultivation. It may also appear strange to some that we should claim that there is more moisture in New England than in Old England, but such is the fact. The rainfall in this country is the greatest, but the mother country has a more moist atmosphere, which sometimes retards growth. Vegetation throws off moisture rapidly on a hot, sunny day; on a cloudy day less water is evaporated, and on a foggy day scarcely any. The more rapidly the sap permeates vegetation the faster it grows, and the more water is given back to the atmosphere. Old England has more cloudy days than we, and fewer hot days. It is true that one rarely or never sees vegetation wilt there as it does here, but that is because the water passes so much more slowly from the plant.—*Ex.*

STEEL WIRE FENCES.

The advertisement of Messrs. Ives and Co. is worthy of the attention of our readers. It is admitted by every one that wire fencing is the least costly and the most easily kept up of any kind of enclosures where wood is scarce. The large engraving (No. 1) explains itself: the posts need be no stouter than for the ordinary rail-fence, and they may be placed 18 feet apart, since *the cattle will not use them as rubbing posts.* In fact, the points attached to the wire are so sharp that the animals soon learn to respect them. The sizes of the wire are named in the advertisement, and the points are 7 inches apart.

For line fences, or along the line road, we recommend four wires, at from 8 to 10 inches apart according to their place above or below in the fence. A good plan is to plough two furrows, one on each side of the proposed line of fence, before setting the posts. At the beginning of the fence, and at every 60 yards afterwards, a stronger post, strengthened by a diagonal support well sunk in the ground, should be placed. The engravings show how fences of from three to five wires are made. Fig. 4 represents, exactly, the cramp by which the wires are fastened to the posts; and fig. 5 shows the lever or crow-bar used to tighten the wires. The crow-bar is of solid iron and may serve for many purposes; it costs about $1.50. The wire varies in price, but it is about 10c. a pound, by retail. Twelve pounds are about 60 yards in length, so a three wire fence or a four wire fence will take 36 pounds or 48 pounds, respectively, to extend that distance.

We intend to enclose several acres with these fences, in the spring, and we mean to try live willows for the posts. One great advantage of the fence is that, being hardened and double, the wire will not contract as with single wire, which causes many a break. The points keep the most perverse animals at a distance, and ensure their owners' fields from all visits from his neighbours' cattle.