

are not considered by some persons as sufficiently great to compensate for the diminution in size, the increased delicacy of the animals, and the decrease of the number in the litters. The best cross is between the Berkshire and the Chinese.

We have been presented with a pair of improved Berkshires, from the pair to which was awarded the first prize at the New York State Fair held at Elmira. If they prove valuable, we shall be able to spare samples for breeding purposes in a few months.

**STEAM PLOUGH IN OPERATION.**—Mr. W. Smith of Wolston, England, under date of Nov. 13, thus writes to the Editor of the Mark Lane Express:

SIR—I have since harvest plowed by steam the whole of my farm, except a bit of wheat stubble left to try an experiment upon in the spring, and a bit of clover-ley plowed with horses. It may be interesting to some of your readers to know the result. I find that the implements exhibited by me at Chelmsford are perfect; that an ordinary seven-horse engine is sufficiently powerful for every useful purpose; that any clay, hilly or uneven field may be plowed: that in plowing my bean and pea stubble at a depth of six inches, I did an acre in one hour and thirteen minutes, and an average of five acres per day, including the time for shifting from field to field at an average cost of 5s. 2d. per acre, including men, coal, water, and horses for shifting; and that in plowing my wheat stubble, at a depth of eight inches on the heavy and ten inches on the light land, I did an acre in two hours, and an average of three acres per day, including time for shifting as above, at an average cost of 8s. 8d. per acre, including men, coal, &c., as above; to this must be added interest of money and wear and tear, say 1s. 6d. per acre, which will be the outside, the tackle coming in nearly as good as it went out. As to the value of the work, I give it to you in the words of practical farmers who visited me: "On the wheat stubbles the common plow is no use against yours; on heavy land the spade cannot equal yours; on bean stubbles one plowing with yours is worth more than two with the common plow."

**HOW TO FEED YOUNG HORSES.**—The adult horse does not require so much of the flesh-making principle as the young and growing animal, but he seems to require a greater variety. The adult merely requires enough to replace the waste—the wear and tear of his system. If he obtains more than this, the surplus is either excreted from the body, or else stored up within the same in the form of fat; and everybody knows that a fat horse, or a fat man, are not best adapted for a race, nor for hard labor; but all others (except those in a state of debility) they are most subject to acute disease. With the young and growing animal the case is different. Here we require bone, muscle and nerve. Oats, corn and pollard furnish the same. The colt obtains from its mother's milk all the elements of its own organization in a concentrated form—all that seems necessary for developing bodily proportions and hereditary traits—therefore, when weaned, the colt must be furnished with the same equivalents in the form of fodder, ground oats, wheat bran, and meal.

It is the young and growing animal that requires our greatest attention. If our readers desire to raise colts that shall remunerate them for the trouble and expense incurred, they must feed the same, during their minority, with a liberal hand. Any neglect at this period can never be made up in after life; the subjects will always remain lank and lean—living monuments of their master's folly, or ignorance, as the case may be. In addition to the food required for the colt's growth, we must also furnish enough to supply the waste incurred by expenditure of muscular power. We all know that the young are very active and playful. Every muscular movement involves an expenditure of vital force, and thus exhausts the system; therefore, in view of developing their full proportions, and promoting the integrity of the living mechanism, they must have nutritious food and plenty of it. They are not, however, to have a large quantity at a time, but little and often; the stomach is small, not larger than that of a man. Should it be ever distended with coarse and innutritious food, the organs of respiration and circulation become embarrassed, and the blood loaded with the carbon. They require food often, because the digestive organs are very active, and soon dispose of an ordinary meal; then comes the sensation of hunger, which every one knows is hard to bear.—*American Veterinary Journal.*