

A complete contrast to these foreign monstrosities was shown in the ploughs of the United States. Here lightness in a degree superior to that shown by any, even English manufacture, was shown. An intelligent American, who spooke of this, said that English makers would think them too slightly made to stand work, and so they would be if made of English wood; but the American young oak, of which they are made, is of so tough and superior a nature that it allows of this apparent lightness. The superior quality of American wood is not confined to oak; we may notice the ash, of which Mr. Page's oars, each 36 feet long, were made, and the hickory, of which the American trotting sulky, with wheels 5 feet high, and weighing only 45 lbs., was constructed.

Pronty and Mears' self-sharpening American plough took the prize in the Exhibition. I was informed that Starbrick's (No. 9) was considered the best plough in the United States, and that this lost through sending a plough calculated to turn a furrow 12 inches wide, while 9 inches was the width appointed by the judges. At all events, both these appear neat ploughs—perhaps rather too short and too much like toys to suit English taste, but much better calculated to plough between stumps, and for one horse, only one being used on all but stiff lands.

The very light ploughs that may be carried in *one hand* are *horse-hoes* used to plough between the rows of Indian corn while in growth.

Further remarks on foreign implements I must defer till next month, when I hope to be able to show that many of foreign improved machines are merely copies of the English—to describe the reaping machine, and to show the difference between American and English agriculture, which leads to the difference in their farm machinery.—*W. R., Oct. 27.*

MANCHESTER AND LIVERPOOL AGRICULTURAL SOCIETY.

The trial of implements commenced at noon, on the 6th, in a field near the Trafford Arms Inn, Stretford. There was a large attendance, and the trial occupied about five hours. The judges considered that the wheeled ploughs had a decided and striking advantage, when it was required that furrows of a greater depth than 5 inches should be produced, but the swing ploughs worked in a very satisfactory manner to 5 inches depth, for which they are in general specially constructed. A dynamometer introduced by the society was upon the ground, and its use brought several results, important to the conduct of agricultural labour. Although no striking difference in the draught of the best ploughs of either kind was dis-

covered by the use of the dynamometer, yet the value of the instrument was strikingly exhibited, by the very serious increase in the draught of ploughs, which it showed from an improper or careful adjustment of the different parts, or from general bad gearing. In many cases it was shown that work could be more efficiently performed, with from 10 to 20 per cent. less draught power, after proper arrangements of the parts of the ploughs; and in a few cases a much greater saving was effected. The prize for general work was given to a two-wheeled plough, by Gascoigne.

A FEW WORDS ON HATCHING AND REARING POULTRY.—I would recommend all parties desirous of procuring a superior breed of birds, at the least possible expense, to obtain two or three barn-door hens about to sit, then buy from some neighbour, having the desired breed, fresh-laid eggs, allowing from eleven to thirteen to each hen, according to size; should more than thirteen eggs be placed under a hen, and the weather prove cold, the chances are that one-third of the clutch, at least, are spoiled. If an out-house or cellar can be used for the nest-house, so much the better, provided the floor is slightly moist. In the darkest corner place a good handful of broken oat-straw; and to better form a nest and prevent the eggs rolling out when the hen moves, a row of bricks all round. In such a place the chickens will shell out strong and healthy. Many persons may wonder at my recommending a moist place; but let it be remembered, if you leave a hen to herself, she will choose for the brooding-place a spot under a bed of nettles, a gap in a hedge, inside a stack of faggots, or similar damp places; all being places nature has pointed out as the most suitable, and apparently for this reason: the germ of the egg floats uppermost within and against the shell, in order that it may meet the genial warmth of the breast of the fowl. We must therefore, in hatching, apply most warmth to that part only; the egg being supplied with only a limited quantity of moisture, is thus arranged to prevent evaporation from a large surface, as the egg is only warm at the part in contact with the fowl, until the blood-vessels searching nourishment for the embryo, have surrounded the inner surface of the shell, when the whole egg becomes gradually warm, and eventually of an equal temperature.—*Cottage Gardner.*

MATERNAL AFFECTIONS IN INSECTS.

Bee carpenters, bee masons, and bee miners, all play their tasks with maternal views. Nor are they without their parallels in the wasp tribe; but the ogress of a wasp mother, instead of pollen, usually provides a larder of flies or gnats, and sometimes, as in the case of the mason wasp, coops up a