

exhibits the most important discoveries and improvements in Agriculture, Mechanics, Chemistry, Botany, Geology, Zoology, Meteorology, &c., together with Statistics of Growth and Production, Tables of American Patents, Catalogue of Fruits adapted to different localities, and the Editor contributes a most valuable and comprehensive Review of the Progress of American and Foreign Agriculture for the present year. The mechanical execution of the work is creditable in the highest degree to the publishers—it is printed on excellent paper, is illustrated by a portrait of Mr. Downing, by several beautifully coloured Engravings of Flowers, and an endless variety of Woodcuts descriptive of Machinery, Implements, Houses, Barns, &c.

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DYE'S BANK-NOTE PLATE DELINEATOR.—This publication contains a perfect description of every part of the genuine bank bills circulating in the United States and British America. It is a volume of 300 pages, and over three years have been spent in its preparation, at an expense of \$30,000. It is recommended by all the bank note engraving companies in the United States. The office of Mr. Dye is 172 Broadway, New York. We append two of the certificates to the value of the work. Further comment is needless.

New York, October, 1855.

John S. Dye, Esquire,
SIR—Having examined the plan proposed in your "Bank-Note Delineator," for enabling the public to detect spurious and altered bank-notes, by furnishing accurate descriptions of the genuine notes of all the banks of the country, we take pleasure in expressing our approval of the same, as affording a simple and effectual provision against that species of fraudulent paper money.

Respectfully yours,
RAWDON, WRIGHT, HATCH & EDSON.

New York, October, 1855.

John S. Dye, Esquire,
DEAR SIR,—We take great pleasure in enclosing Mr. Cary's opinion of your Bank-Note Plate Delineator, and in recommending it as a work of the greatest utility. Respectfully yours,

TOPPAN, CARPENTER & CO.

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AGRICULTURAL MEETING AT PADHAM, ENGLAND.

The sixth annual show of the Padham (Lancashire) Agricultural Society was held on Thursday, 18th Sept., and was considered the most successful exhibition yet held under the auspices of the association.

The annual dinner took place in the evening in the Padham Assembly-room. Mr. Le Gendre Nicholas Starkie, jun., presiding.

The usual preliminary toasts having been duly honoured, Sir J. P. Kay Shuttleworth, in proposing "The Health of the Lord-Lieutenant and Magistrates of the County," said, the Lord-Lieutenant and the majority of the Magistrates of the County are great land-owners, and as such they have great social duties to perform. In connection with associations such as the one which is assembled here to-night they have duties of a nature deeply interesting to the members of such societies, and I think that associations of this

character may be made chiefly useful if we each according to our ability, contribute that share to the common stock of information which our opportunities best fit us to impart. My own acquaintance with agriculture is necessarily of a very limited nature. It is confined to those general improvements which are necessarily the function of the proprietor, such as the general drainage of estates, the improvement of farm buildings, and the introduction of those permanent means of advancement in the culture of the land, such as the means of storing liquid manure and so on, which are properly the duties of a proprietor. (Hear, hear.) I have also felt it my duty, as I know it has been the custom of some of the gentlemen who surround this table, to make myself well acquainted with those improvements in science which affect the progress of agriculture—I mean such knowledge as is conveyed by books. And there is in one direction an opportunity which I have possessed of late years, owing to the necessity of foreign travel for the restoration of my health, for I have been enabled to bestow much time and a good deal of minute attention on a comparison of the systems of foreign agriculture with that of the British. What occurs to me, therefore, in relation to that which is the object of our meeting to-night, and that which I may say calls upon me to speak as a duty, as a magistrate and a proprietor in this county, is that which I can best do in connexion with the objects of this meeting,—that I should in some very brief and general terms, without at all descending into minute and fatiguing statistics, give you a slight sketch of what appear to me to be the great features of contrast between foreign and British agriculture. Now, I am very happy to say, at the outset, that in many most important respects the agriculture of England has made, especially in the present century, an enormous advance over that of our foreign neighbours. That advance has been owing to the application of some very simple principles in the breeding of cattle and in the culture of the land; and to these I will endeavour to direct your attention, because I think we may learn even from our past successes and from having a clear idea of what are the principles of progress that we have hitherto pursued, and which have given us a great advantage over our neighbours, in what direction our efforts may best in future be turned. In the first place, anybody who travels abroad will be greatly struck with the vast difference which exists in the breeds of cattle in the various countries of Europe. It is very common throughout the whole of Europe to employ the cattle to an immense extent for purposes of labour. Almost all the farm work is performed by oxen, and likewise a very large quantity of the cartage of the continent is performed by oxen, and not, as in this country, by horses. Even in the case of a gentleman's carriage abroad, when it comes to the bottom of a very steep hill, the relays at the bottom of the hill are not relays of horses generally, but of a long team of oxen, which drag the carriage to the top of the hill at a very slow pace. Now, there is a very great consequence of that which your own show to-day will make you at once aware of,—that it has been the great object, in the breeding of cattle abroad, to give great prominence to bone and strength as the means of labour, in preference to that which constitutes the great object of breeding in England—the smallness of the bone, the early delicacy and precocity of the animal, the roundness of

form, the bulk, and instead of great capacity of labour, such bulk as is a great hindrance even to locomotion. Now, the way in which this great change in the character of the breeds of cattle in England during the last 80 or 90 years has been produced has been by the principle of selection. Mr. Bakewell, with respect to the Leicester breed, the Elms, with respect to the Southdown breed, and Mr. Collins, with respect to the Cheviot breed, have produced an immense change, for example, in the sheep of this country. They have produced sheep with great roundness of form, with exceedingly small bone, with great weight, but with very small powers of locomotion; and the same principle has been applied to cattle, the Short-horns, the Hereford breed, and the Ayrshire breed being all characterised by the same qualities, smallness of bone, the great bulk of carcase, and the large amount of meat that they will yield. In England, likewise, in reference to sheep, we have thought much more of the production of meat than wool, whereas in France and a large part of the continent, agriculturists have paid much more attention to the production of wool than meat; and one of the consequences has been that, even in England, seeing that we have preferred the production of meat to that of wool, the carcase of the sheep has been much larger, and therefore the fleece has been much larger, and in England the value of the fleece has been on the average as great as in France, while the value of the meat in England is double the value of that in France. Connected with these principles has been a third. The breeds of sheep and cattle produced in England have not as I said before, been calculated for endurance of labour, as they are on the continent, and consequently they have had little bone, but they have been also breeds of great delicacy. The principle of selection has been precocity of growth; the breeds of sheep and cattle, with one exception, arriving at their maturity in two years, and they are ready for the butcher at the end of two years, whereas the breeds of cattle in France and on the continent generally are kept many years for purposes of labour, after they have arrived at the greatest growth. Therefore the whole consumption upon the farm for the maintenance of these cattle is simply expended in labour, and it was evidently a false economy which led the French to suppose that, while they were having the advantage of the cattle for labour, they were also getting some advantage of them in meat; for, after two years, with an animal properly selected for the purpose, there is no increase in bulk, and it is better to kill the animal. Now, these principles, which are very simple, the principles of the selection of the breeds of cattle in England, are connected also with another very great change in England—that is, with the introduction of the rotation of crops, with the limitation of the extent of land applied to the purposes of growing corn, with the application of richer manures, with the keeping upon the land of the largest amount of stock, and therefore with the production of the largest possible amount of corn from the land. On the contrary, in France and over almost the whole of the continent, the plan of furrows still remains, the land is to a very great extent, very generally, much richer than that of England; there is a much larger extent of arable land, and it is land generally of a much more friable nature; and the climate is in every respect better adapted to the success of agricultural operations, yet,