

little short of the descriptions which had been given of it, exaggerated as they were thought to be at the time. It was of an unusual size, and very strongly made, especially in the fore-parts, its legs there being as big round as a man's wrist, and the print of its fore-foot measuring full three inches and a half across. Its death having been ensured, a cart was obtained, and the body placed in it was taken off in triumph to Goosnargh, followed by nearly a couple of hundred farmers and bilvers.

From the *Maidstone Gazette*.

TRANSMUTATION OF OATS INTO WHEAT, BARLEY, OR RYE.

The statement of the Rev. G. Moore, at the dinner of the Sittingbourne Agricultural Association, having caused some interesting discussion, and, we may add, having been received with some little incredulity, we give the statement in the "Vestiges of the Natural History of Creation," alluded to by Mr. Moore. The author of the "Vestiges" says, in his fifth edition, whilst arguing against the persistence of the present systems of botanical species:—"After such instances, it will not be surprising that the specific and even (so-called) generic differences among the cerealia, are now discovered to be capable of reduction. It appears that, whenever oats sown at the usual time are kept cropped down during summer and autumn, and allowed to remain over the winter, a thin crop of rye is the harvest presented at the close of the ensuing summer. Perhaps the greater number of what may be called the domesticated plants are unsuspected variations of others, which, growing wild, are recognised as different species. One noted instance of such transition has been detected within the last few years, in the common cabbage of the garden. This plant, with its stout fleshy stem and large succulent leaves gathered into a heart sometimes reaching several feet in circumference, is now discovered to be merely an advance by means of external conditions from the wild kale of the seashore, which trails among the shingle with a tough slender stem and small glaucous leaf. After such an array of facts, can it reasonably be said that specific distinction is rigidly maintained in the current era?" This alleged fact having been doubted by a writer in the Edinburgh Review, the author of the Vestiges returns to the fact in his "Explanations," in which he says:—"The objection of the Edinburgh reviewer, to the alleged transmutation of oats into rye, is that he believes it a fable. This is the opinion of one person, advanced without fact or argument to support it. Let us see, on the other hand, what a greater authority on botanical subjects than he—namely, Dr. Lindley—has stated on the same subject. "At the request," says this learned person, "of the Marquis of Bristol, the Reverend Lord Arthur Hervey, in the year 1843, sowed a handful of oats, treated them in the

manner recommended, by continually stopping the flowering stems, and the produce, in 1844, has been for the most part ears of a very slender barley, having much the appearance of rye, with a little wheat and some oats; sample of which are, by the favour of Lord Bristol, now before us." The learned writer then adverts to the "extraordinary, but certain fact, that in orchidaceous plants, forms just as different as wheat, barley, rye and oats, have been proved by the most rigorous evidence, to be accidental variations of one common form, brought about no one knows how, but before our eyes, and rendered permanent by equally mysterious agency. Then," says Reason, "if they occur in orchidaceous plants, why should they not also occur in corn plants? for it is not likely that such vagaries will be confined to one little group in the vegetable kingdom; it is more rational to believe them to be a part of the general system of creation. . . . How can we be sure that wheat, rye, oats, and barley, are not all accidental off-shoots from some unsuspected species?" The reader will now be partly able to judge of the value of the unsupported dictum of the reviewer.—There are many other facts that throw a strong light on transmutation, both of plants and animals. So far from there being any decisive proof against this theory, there is no settled conclusion at this moment amongst naturalists, as to what constitutes a species. "There is," says Professor Henslow, "no law whatever hitherto established, by which the limits of variation to a given species can be satisfactorily assigned, and until some such law be discovered, we cannot expect precision in the details of systematic botany." The result mentioned by Mr. Moore is, therefore, not only not improbable, but is really likely to have taken place, for the concurrent testimony of so many other witnesses to the same fact, can scarcely be doubted.

From the *Maidstone Gazette*.

BONE MANURE FOR MARSH LANDS.

"Having seen in your paper of the 2d November an article in the column set apart for agricultural information, I shall be glad to know in your next what quantity of bone dust per acre is requisite for marsh land, since the excrement is not considered sufficient, what period is considered the best for applying the same, and if guano would do as well as bone dust? By your attention you will oblige, A. B."—Guano would probably act more rapidly on well drained soils than bones, because guano contains the ammoniacal salts as well as the phosphates, but it is proportionally less durable than bones. The question respecting bones will be answered by the following extract from the Rural Cyclopaedia:—"Upwards of 600 acres of pasture land upon one estate in Cheshire have, within the last thirteen years, been raised, by the application of bone-manure, from a value of from 10s.

to 15s. to a value of from 30s. to 40s. The cost of the application has been about £10 per acre; and 7 per cent. added to the rent payable by the tenant. The manure is applied in pieces about the size of walnuts, in quantities of from 2 to 35 cwt. per acre, and never upon land which has been in grass for a less period than seven years. It is most successful on old sour sward with a clay subsoil which is free from surface water; and is also advantageous, though not to the same degree or with the same unqualified uniformity, upon dry friable pasture with a sandy substratum. "The end of April," says the reporter of the Cheshire cases, "is considered the best time to apply bones; stock ought to be put upon the land before the following spring. If the land is not too poor to produce a crop of hay, I do not object to its being mown the first year, but on no account afterwards. It is now twenty years since I first saw bone-dust applied to pasture land, on a field adjoining Lord Cambermere's estate. At the time the bones were put upon the land, it certainly was not worth more than 10s. an acre; and though so long a period has elapsed since the field was manured with bones, it is now worth 35s. an acre, though I think the land is not quite so good as it was five years ago." The Doncaster Association gives from 2½ to 30 bushels per acre of bone-dust as the quantity generally used. On old marsh land we should recommend 20 bushels, applied broadcast, as early as possible.

INSTANCE OF SAGACITY IN A HORSE.—

It has been said that "preservation is the first law of nature," and never was that proverb more strikingly or more curiously illustrated than in the case of a horse a few days ago. A contractor on the railway at Sparkford bought two horses, which he put into a field with a bull; the latter, taking a dislike to his neighbours, gored one of them to death, but the other horse became so frightened that he leaped into an old saw-pit which was in a corner of the field, and buried himself up to his head in mud and saw-dust. The bull followed him to the pit's mouth, and there stood during the whole night watching his victim, cowering beneath him in the pit. In this position they were found on the following morning by the owner of the horses. As soon as the horse perceived his master he leaped out of the pit, and ran to him for protection, exhibiting feelings of gladness at being delivered from the clutches of the dreadful bull.—*Western Flying Post*.

It is a fact perhaps not generally known that if an oyster-shell be kept continually in a kettle or boiler, it will prevent it becoming choked by what is commonly called *fur*; the deposit will adhere to the shell, leaving the vessel free.