

## On some Reaping Machines of the Ancient Gauls.

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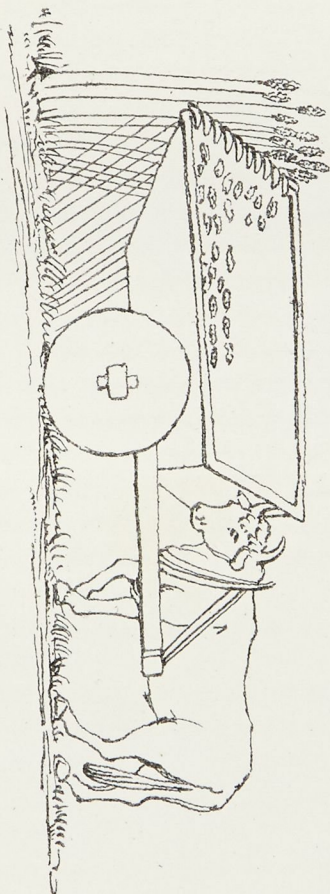
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THE object of Archæology is to trace out a picture of the social condition of ancient times by the monuments which they have left; man and his works are therefore the right aim of this study. All ancient monuments (even the rudest and most common) are evidence of some facts, and these facts, when collected together, represent to us what may be called the moral statistics of ancient society. Considered in this light, archæology is entitled to rank as a science: its usefulness is manifest, and it is a most delightful study from the variety of its inquiry. It enables us to live and converse with all the great men and great people of antiquity: we penetrate into our own history through theirs—we derive a vivid pleasure from bringing our opinions, our tastes, and our customs into comparison with theirs—and are taught to speculate on our own future by what we learn of their destinies.

Such considerations have encouraged me to bring before the Archæological Society of our essentially agricultural county two extracts from celebrated authors of ancient Rome who have written upon rural affairs, and the systems of cultivation in use in their time. It may please and instruct us to compare them with our own.

The first is from Pliny's *Natural History*, Book xviii., chapter 30, sec. 71. He lived about A.D. 23. The second is

SUPPOSED REAPING MACHINE OF PALLADIUS.





from Palladius, *De re Rusticâ*, Book vii., Tit. 2. He probably lived about A.D. 380.—(Vide extracts and translations.)

It cannot be asserted that these descriptions of reaping machines show a precisely similar construction to that of our days, as will be well seen by the drawing I exhibit, which is copied from M. Mongez' illustration in the *Memoirs of the Institute of France* (vol. iii. 1818); but I think all will be convinced that the ancient idea is the same in principle as the modern, and be surprised, perhaps, to find that what is usually considered a quite recent improvement in agriculture was known and practised so long since—in days which it is the province of archæology to study—and that a fresh proof is thus afforded how much we may learn by that study, and how we are enabled by it not only to compare the wants and inventions of man in ages long gone by with those of our own times, as a matter of deep and curious interest, but may also, by a right comprehension of the past, learn to appropriate much useful and applicable knowledge for ourselves.

Speaking of reaping corn, Pliny says—"Messis ipsius ratio varia. Galliarum latifundiis valli prægrandes dentibus in margine infestis, duabus rotis per segitem impelluntur, jumento in contrarium juncto; ita direptæ in vallum cadunt spicæ."—Lib. xviii. cap. 30, A.D. 23.

*Translation.*

There are different modes of reaping. In the vast plains of Gaul very large wooden machines, armed with teeth on their edges, and mounted on two wheels, are forced through the standing corn by an animal propelling them from behind; thus as the ears are cut off they fall into the machines.

Palladius, in his *De re Rusticâ*, says—"Pars Galliarum planior hoc compendio utitur ad metendum, et præter hominum labores, unius bovis operâ spatium totius messis absumit. Fit itaque vehiculum quod duabos rotis brevibus fertur.

Hujus quadrata superficies tabulis munitur quæ forinsecus reclives in summo reddant spatia largiora. Ab ejus fronte carpenti brevior est altitudo tabularum; ibi denticuli plurimi ac rari ad *spicarum mensuram* constituuntur in ordinem, ad superiorem partem recurvi. A tergo verò ejusdem vehiculi duo brevissimi temones figurantur, velut amites basternarum; ibi bos capite in vehiculam verso jugo aptatur et vinculis, mansuctus sanè, qui non modum compulsoris excedat. Hic ubi vehiculum per messes cæpit impellere omnis spica in carpentum denticulis comprehensa cumulatur, abruptis ac relictis paleis; altitudinem vel humilitatem plerumque bubulco moderante, qui sequitur, et ita per paucos itus ac reditus brevi horarum spatio tota messis impletur. Hoc campestribus locis vel æqualibus, utile est, et iis quibus necessaria palea non habetur.”—Lib. vii. Tit. 2, circa 380.

*Translation by MR. KING, Trinity College, Cambridge.*

The more level parts of Gaul use the following expeditious method for reaping, and, dispensing with the labour of men, with a single ox complete the whole extent of the entire harvest. For this purpose a vehicle is made, carried upon two low wheels. Its surface is square and bordered by planks, which, sloping outwards, make the inside wider at top than at bottom. On the fore-part of the carriage the planks are not so high as at the sides, and here are planted in a row numerous small teeth, set at distances according to the size of the wheat ears, and all curving upwards (at the same elevation as Mongez'). From the rear of the aforesaid vehicle a couple of small poles are arranged, just like the poles used in carrying litters (sedan poles), into which the ox is fastened, his head towards the carriage, by means of a yoke and straps. He must, however, be a quiet beast, so as not to go beyond the direction of his driver (the pace required). When the latter begins to drive the machine through the standing corn, all the ears that are seized by the teeth are carried in a heap into the vehicle, the straw being torn off and left standing; the ox-driver following behind, regulating the elevation or depression of the machine occasionally, and thus in a few goings forward and returnings, in the the short space of a few hours the whole harvest is carried (or completed). This plan is suitable for plains and level ground, and where the straw is not considered a thing of importance.