

Harvesting by the Gauls: The Forerunner of the Combine Harvester

By LESLIE G. MATTHEWS

A REMARKABLE discovery was made in the summer of 1958, in the ramparts of Montauban-Buzenol, not far from Virton, Belgium. Attention was called to this by J. van Oocteghem, s.j., in *Les Etudes Classiques* (Namur University, April 1959). The discovery was a large fragment of sculpture of the Gallo-Roman period on which was figured part of a machine. It showed a wheeled implement, carrying knives or pointed blades of a sort, a workman lifting material with a rod, faced by an animal that might be a donkey standing between the shafts of a wheeled contrivance. What did it depict? Fortunately the answer came by reference to a much earlier discovery, made more than a century before—in 1854—of a Gallo-Roman sculptured fragment at Arlon, Belgium, and which was housed in the Arlon Museum. This earlier fragment had been described by the President of the Archaeological Institute of Luxembourg (M. A. Bertrang) in the *Bulletin Trimestriel* (Oct. 1958).

Bertrang had noted that the Arlon Museum guide, published in 1905, referred to this earlier fragment as a "frieze depicting a man enclosed in a rectangular container with his hands bearing upon it, and following the rump of an animal whose tail could be clearly seen. Corn or herbage of some kind surrounded him—explanation is difficult."

Another writer (E. Esperandiu) gave a fuller description: "A man, wearing a short tunic, his arms bare, leaning forward, walking towards his left and carrying on his shoulder a sort of contrivance which surrounded him, and guiding two animals—around him were tall herbs or a field of corn. He is probably an agricultural worker. The stone is broken on the left side."

It remained for the experts to link the two fragments: for when put together it became clear that these two fragments fitted, save for a minor break in the centre, and that here was a

first-hand representation of the Gaulish corn-harvester, first described by Pliny the Elder, and later by Palladius, and for long thought to be the kind of story brought back by returned soldiers from Gaul—the sort of story that would go down well with the people at home.

As van Oocteghem aptly remarks, in this part of Gaul our ancestors had nothing to learn from the Romans, rather the contrary!

The following are free translations from the original descriptions:

1. Pliny the Elder (23–79 A.D.) *Nat. Hist.* XVIII, 72 296 notes:

"On their great estates the Gauls make use of a very large container (or tank-vallus) with toothed sides and which is propelled by means of two wheels across a field of corn by a beast pushing in the contrary direction; the ears (of corn) cut off by this means fall into the container."

2. Palladius (Fourth-century writer on Agromonics) Book VII *De re rustica* describes the mechanics of this operation in greater detail: "They obviate much hand-labour and in a day an ox can get in the whole harvest. The vehicle (used) is mounted on two small wheels. Two flat sheets (of metal) are mounted on the vehicle towards the exterior, the smaller of the two being in the front of it. On these sheets are fixed recurved teeth. Two short shafts are attached to the front of the vehicle. An ox is harnessed with its head towards the vehicle. It must be a quiet animal so that it does not push too heavily. As it propels the machine across the field the ears of corn are gripped by the teeth, cut off, and fall into the vehicle, while the straw falls outside and the operator who is behind raises or lowers the machine. Thus by constantly going backwards and forwards across the field the whole crop is garnered. This is a good practice where the fields are level and where the straw is of no importance."



Fragment de Montauban (58 × 155 cm.)



Fragment d'Arlon (62 × 115 cm.)

Gallo-Roman bas relief, probably second century A.D.

Redrawn from illustrations to 'La Moissonneuse Gauloise' by
J. Van Ooteghem, S.J., in *Les Etudes Classiques*, Namur University,
1959, xxvii, no. 2