
PHILOSOPHICAL TRANSACTIONS.

I. *An Account of the Use of Furze in fencing the Banks of Rivers: In a Letter to the Reverend Stephen Hales, D. D. F. R. S. from the Reverend Mr. David Wark.*

Reverend Sir,

Read Jan. 8,
1761.

I HAD occasion to inform you before, that on observing a little sand placed in the midst of a river, where the stream was pretty rapid, I inquired into the cause, and found a furze bush lodged there, which had detained the sand, in spite of the current. It was easily concluded from hence, that furze might be profitably used in fencing the banks of rivers, at a very cheap rate, and thereby preventing many acres of rich soil from being changed into barren gravel. Several years after, I prevailed on some gentlemen of my acquaintance to try the experiment; which was fo

VOL. LII. B cheaply

cheaply done, and followed with such remarkable success, that numbers soon followed their example: so that it is now almost universally practised here; and, hitherto, has never been once known to fail, in answering the design. In pursuing the scheme, I found, upon trial, that locks and damheads might be raised, at one tenth of the ordinary expence, by the help of furze, as a very thin perpendicular wall of stone and lime, or one of deal-boards, two inches thick, is the principal part of the expence. Close to this wall, on the other side, is a mound of furze intermixed with gravel, and along the top of it (of the wall, viz.) a strong tree, equal with the highest part of the mound. It is plain, this wall cannot be hurt by the weight of the water, or force of the current, as it is defended by the contiguous mound, which is six or seven yards broad; nor can the pressure of the mud and gravel make it give way, as their weight is suspended by the interweavings of the furze. If, therefore, the tree on the top of the wall can be made to keep its place, the whole is firm.

It is well known, that they make their sea-dykes in Holland with faggots of any sort of brush-wood; and it must appear to any one, who examines the net-work formed by the crossings of the branches and prickles of furze, that it is far more effectual for this purpose, both as it detains the collected earth, and is far more cheaply procured than faggots.

I hope it will be easily observed, from what has been said of locks and damheads, that a great deal
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of expensive stone-work in building harbours may be avoided, by the help of furze mounds.

I am,

With the greatest respect,

Reverend Sir,

Your most obedient,

humble servant,

Had^a. Dec. 13, 1760.

Da. Wark.

II. *An Account of a remarkable Halo: In a Letter to the Rev. William Stukeley, M. D. F. R. S. from Tho. Barker, Esq;*

Reverend Sir,

Read Jan. 8, 1761. **I** Thank you for presenting my paper on the Dog star to the Royal Society; the opinion advanced in which is so very unusual, that I expect it will be at once rejected, as incredible, by all, who do not care for the work of examining the evidence for it. But I should be glad to hear, that some impartial person had carefully searched, whether what I have said be supported by fact, and what other evidence can be found, which I have missed, either in support or confutation of that change of colour in Sirius, which I have supposed.

I have long neglected to acknowledge the favour of your information about the comet in Orion last January; but had nothing particular to say about it, not