

of the piers: and by them it appears to me, that the insides of the said piers are filled with rubble; and the external faces are formed with ashler laid in courses: but the rubble appears to be laid with good mortar.

“George Dance.”

TRACT III.

EXPERIMENTS AND OBSERVATIONS TO BE MADE ABOUT LONDON BRIDGE.

THIS is another of the papers, relating to the state of London bridge, bought at the sale of the late Mr. John Robertson's books. It appears to be an answer given to certain queries, addressed to the Royal Society from the Committee of Common Council of the City of London. This answer is signed by the President, the Vice-Presidents, and several other respectable members of the Royal Society; viz. by Martin Folkes, esq. the president, and by Wm. Jones (father of the late Sir Wm. Jones), James Jurin, M. D., Geo. Lewis Scott, esq., Benj. Robins, esq., and John Ellicott, esq., all names highly respectable for their eminent scientific labours.—Their report is in the following words:

“In order to answer the queries proposed by the Committee, with regard to the alterations of London bridge, we apprehend it will be necessary,

“1st. To have an exact level taken, between some fixed point on the west side of London bridge, and another point on the east side of Westminster bridge; as also, to take the like level between some fixed point on the east side of London bridge, and another point at some convenient place about 2 miles below the bridge.

“2. To take the perpendicular height of each of those 4

points above the surface of the river at low-water, and likewise at every quarter of an hour before and after low-water; and to observe the time when the low-water happens at those places; and the same for high-water.

“ 3. To take the height of the fixed point on the west side of London bridge, above the surface of the river, at the low still water, and high still water under the drawbridge, with the time of each.

“ 4. To take the height of the same point, above the surface of the river, just above the sterling, at the time of low-water below bridge.

“ 5. To take the depth of the water in all the gullets, or at least in that under the drawbridge, at the time of low still water.

“ 6. To ascertain in how many of the arches the dripsot piles are driven; how close together; and how far the tops of them are below low still water mark.

“ 7. To know particularly at what time the sterlings are first intirely covered, and when first intirely uncovered.

“ 8. To know exactly the time of low and high water mark, and the height the water rises to, at the Nore, Gravesend, and Woolwich.

“ 9. That all the foregoing observations of the tides, be made at some one spring tide, and likewise at some one neap time. Was signed,

M. Folkes; Wm. Jones; Jas. Jurin; Geo. L. Scott; Benj. Robins; John Ellicott.”