

PUMP.

It would be an entertaining and not an uninteresting piece of information to learn the progressive steps by which the ingenuity of man has invented the various methods of raising water. A pump must be considered as the last step of this progress. Common as it is, and overlooked even by the curious, it is a very abstruse and refined invention. Nothing like it has been found in any of the rude nations whom the restless spirit of the Europeans has discovered, either in the new continent of America or the islands of the Pacific Ocean. Nay, it was unknown in the cultivated empire of China at the time of our arrival there by sea; and it is still a rarity everywhere in Asia, in places unfrequented by the Europeans. It does not appear to have been known to the Greeks and Romans in early times; and perhaps it came from Alexandria, where physical and mathematical science was much cultivated by the Greek school under the protection of the Ptolemies. The performances of Ctesibius and Hero are spoken of by Pliny and Vitruvius as curious novelties. * It is perhaps not difficult to trace the

* In the early Greek writings, it does not appear that the words *'αντλος*, *'αντλῆιν*, *'αντλια*, &c. were used to express any thing like what we call a pump. In all these passages the words either express generally the drawing of water, or, more particularly, the drawing it with