

proposed to apply the heat of ascending springs to the warming of green houses. Artesian wells have long been used in Italy, in the duchy of Modena; they have also been successfully applied in Holland, China,* and N. America. By means of similar wells, it is probable that water may be raised to the surface of many parts of the sandy deserts of Africa and Asia, and it has been in contemplation to construct a series of

* An economical and easy method of sinking Artesian Wells and boring for coal, &c. has recently been practised near Saarbrück, by M. Sellow. Instead of the tardy and costly process of boring with a number of Iron Rods screwed to each other, one heavy Bar of cast Iron about six feet long and four inches in diameter, armed at its lower end with a cutting Chisel, and surrounded by a hollow chamber, to receive through valves, and bring up the detritus of the perforated stratum, is suspended from the end of a strong rope, which passes over a wheel or pulley fixed above the spot in which the hole is made. As this rope is raised up and down over the wheel, its torsion gives to the Bar of Iron a circular motion, sufficient to vary the place of the cutting Chisel at each descent.

When the chamber is full, the whole apparatus is raised quickly to the surface to be unloaded, and is again let down by the action of the same wheel. This process has been long practised in China, from whence the report of its use has been brought to Europe. The Chinese are said to have bored in this manner to the depth of 1000 feet. M. Sellow has with this instrument lately made perforations 18 inches in diameter, and several hundred feet deep, for the purpose of ventilating coal mines at Saarbrück. The general substitution of this method for the costly process of boring with rods of iron, may be of much public importance, especially where water can only be obtained from great depths.