SELLA turcica, is a deep depreſſion between the clinoid apophyſes of the ſphenoid bone. See Anato­my, p. 682.

SELTZER water, is a mineral water which ſprings up at Lower Seltzer, a village in the electorate of Triers, about 10 miles from Frankfort on the Mayne.

It is a very uſeful medicinal water. It contains, accord­ing to ſome, a very ſrnall portion of calcareous earth, of a native mineral alkali, and an acid ; but of theſe the quantity is too ſmall to attribute any medicinal virtues to ; but it contains alſo near 1.7th of its bulk of fixed air, which is more than is found in any other mineral water, and to this it owes its principal virtues. Others have ſaid that it is of the very same nature with Pyrmont water, and contains a ſubtile aqueous fluid, a volatile iron, and a predominant alkali, all joined together into one briſk ſpirituous water. The conſequence of theſe different opinions reſpecting its conſtituent parts is, that different methods have been recommended for imi­tating it.

According to the former analyſis, artificial Seltzer water may be prepared by adding one ſcruple of magneſia alba, six ſcruples of foſſil alkali, and four ſcruples of common ſalt, to each gallon of water, and ſaturating the water with fixed air or carbonic acid. According to the latter it may be imitated by adding to a quart of the pureſt and lighteſt water thirty drops of a ſtrong ſolution of iron made in ſpirit of ſalt, a drachm of oil of tartar per deliquium, and thirty drops of ſpirit of vitriol, or a little more or leſs as is found neceſſary, not to let the alkali of the oil of tartar prevail too ſtrongly, tho’ it must prevail a little. If the proportions be carefully obſerved, and the whole of theſe ingredients ſhaken briſkly together, the artificial Seltzer or Pyrmont wa­ter thus made will ſtrongly reſemble the natural, and have the ſame good effect in medicine.

But as fixed air is the only efficacious medicinal part of the compoſition of Seltzer water, the beſt method of imitating it is by impregnating common water with that acid by a proceſs for which we are indebted to Dr Prieſtley. The firſt idea of this kind occurred to him in 1767, when, having placed ſhallow veſſels of water within the region of fixed air, on the ſurface of the fer­menting veſſels of a brewery, and left them all night in that ſituation, he found that the water had acquired a very ſenſible and pleaſant impregnation. He proceeded to accelerate the impregnation by pouring the water from one veſſel into another, while they were both held within the ſphere of the fixed air. The method of effecting this by air diſlodged from chalk and other calcareous ſubſtances did not occur to him till the year 1772, when he publiſhed his directions for this purpoſe, together with a drawing of the neceſſary apparatus, which he had before communicated to the Board of Admiralty. That apparatus has now given way to another invented by Dr Nooth, which is made of glaſs, and ſtands on a wooden veſſel *dd* (fig 1.) reſembling a tea-board: the middle veſſel B has a neck which is inſerted into the mouth of the veſſel A, to which it is ground air-tight. The lower neck of the veſſel B has a glaſs ſtopper S, compoſed of two parts, both ha­ving holes ſufficient to let a good quantity of air paſs through them. Between theſe two parts is left a ſmall ſpace, containing a plano-convex lens, which acts like a valve, in letting the air paſs from below upwards, and

hindering its return into the veſſel A. The upper veſ­ſel C terminates below in a tube *rt,* which being crook­ed, hinders the immediate aſcent of the bubbles of fixed air into that veſſel, before they reach the ſurface of the water in the veſſel B. The veſſel C is alſo ground air­tight to the upper neck or the middle veſſel B, and has a ſtopper *p* fitted to its upper mouth, which has a hole through its middle. The upper veſſel C holds just half as much as the middle one B ; and the end *t* of the crooked tube goes no lower than the middle of the veſ­ſel B.

For the uſe of this apparatus : Fill the middle veſſel B with ſpring or any other wholeſome water, and join to it the veſſel C. Pour water into the veſſel A (by the opening *m,* or otherwiſe) ſo as to cover the riſing part of its bottom : for this about three-fourths of a pint will be ſufficient. Fill an ounce phial with oil of vitriol, and add it to the water, ſhaking the veſſel ſo as to mix them well together. As heat is generated, it will be beſt to add the oil by a little at a time, otherwiſe the veſſel may be broken. Put to this, through a wide glaſs or paper funnel, about an ounce of powdered raw chalk or marble. White marble being firſt granulated, or pounded like coarſe fand, is better for the purpoſe than pounded chalk, becauſe it is harder ; and therefore the action of the diluted acid upon it is flower, and laſts to a conſiderable time. On this account the ſupply of fixed air from it is more regular than with the chalk ; and beſides, when no more air is produced, the water may be decanted from the veſſel A, and the white ſediment waſhed off, and the remaining granulated marble may be employed again, by adding to it freſh water and a new quantity of oil of vitriol. The funnel in this proceſs is made uſe of, in order to prevent the powder from touching the inside of the veſſel’s mouth ; for if that happens, it will ſtick ſo ſtrongly to the neck of the veſſel B as not to admit of their being ſeparated without breaking. Place immediately the two veſſels B and C (fattened to each other) into the mouth of the veſſel A, as in the figure, and all the fixed air which is diſengaged from the chalk or marble by the oil of vi­triol will paſs up through the valve in S into the veſ­ſel B. When this fixed air comes to the top of the veſſel B, it will diſlodge from thence as much water as is equal to its bulk ; which water will be forced up through the crooked tube into the upper veſſel C.

Care muſt be taken not to ſhake the veſſel A when the powdered chalk is put in ; otherwiſe a great and ſudden efferveſcence will enſue, which wall perhaps ex­pel part of the contents. In this cafe it may be necesſary to open a little the ſtopper p*,* in order to give vent, otherwiſe the veſſel A may burſt. It will be proper alſo to throw away the contents and waſh the veſſel; for the matter will ſtick between the necks of the veſſels, and cement them together. The operation muſt then be begun afreſh. But if the chalk be put into the veſſel looſely wrapt up in paper, this accident will he ſtill better guarded againſt. When, the efferveſcence goes on well, the veffel C will ſoon be filled with water, and the veſſel B half filled with air ; which will eaſily be known to be the caſe by the air going up in large bubbles through the crooked tube r *t.*

When this is obſerved, take off the two veſſels B and C together as they are, and ſhake them ſo that the wa­ter and air within them may be much agitated. A great