thrown across the Vistula, the wood which had been made uſe of being too weak, and the timber-work ill ſecured, the bridge broke down whilst the king was passing. Charles, the prince of Wirtemberg, and many others, fell into the water : the king, having caught hold of a piece of the timber that was floating, was carried away by the current. The troops which had already passed found themſelves at the enemy’s mercy, who might have destroyed them ; but they did nothing, says the historian Nordberg, becauſe of the heights of which the Swedes were in possession, and from whence they kept a fire upon the Saxons. Was it not rather an instance of the good fortune which uſually at­tended that intrepid prince ?

It is probable, when a river is passed upon bridges in pretence of the enemy, that they have been built before his arrival, and conſequently there has been time to entrench them at each end, but particularly on that side next the enemy. These entrenchments ſhould be made in such a manner as to prevent the bridges from being flanked by the enemy’s cannon ; therefore, instead of the entrenchments usual at the heads of the bridge, such as a horn-work, a crown-work, or a half-moon, the general ſhould cauſe redoubts to be thrown up, the farthest of which ſhould be 400 yards distance, and opposite to the bridge ; and the others ſhould be thrown up nearer to the banks of the river, forming a ſemicircle ; in order for their better defence, the general ſhould follow the same diſpositions which have been laid down in the preceding part. If there are many bridges, they ſhould be constructed as near each other as poſſible, that the same redoubts may equally ſerve to cover them : the reaſon of theſe redoubts being placed at a distance from the bridges is, that, as the troops paſs, they may have room to form, and ſustain thoſe occupying the redoubts. Theſe redoubts, it must be acknowledged, require a greater degree of labour than is requisite for the construction of a half-moon, or even a crown-work ; but it ſeems impossible to pass a river upon bridges in preſenee of an enemy, however strongly they may be entrenched, if there is not ſpace enough left between the entrenchments and the bridges to contain a number of troops sufficient to oppoſe the enemy, and to give time for the remainder of the army to paſs. Labour ſhould never be considered when an enterpriſe is ſucceſsful ; a general, therefore, ſhould never ſpare any pains for the attainment of his ends, but ſhould take every precaution neceſſary for succeſs, without troubling himself about the time and the labour it will cost : the glory of having forced the enemy to leave the passage open to him makes ſufficient amends for the trouble he has given himſelf in order to attain it.

Suppoſe an army of 60,000 men would paſs a river, guarded by an army of 40,000. Let it alſo be ſupposed, that the army intending to paſs has got the start of the ene­my, either becauſe he was not yet arrived, or becauſe he has been amuſed with marches and counter marches ; that the general has alſo had time to construct three bridges, and to entrench them in the manner above-mentioned : he must begin the passage by causing the redoubts to be oc­cupied by a battalion, or half a battalion, according to their size ; and he must plant cannon between thoſe redoubts, with infantry to guard them. Theſe diſpositions being made, the army must march in three columns ; the centre column must be entirely infrantry, and the other two com­poſed of infantry and cavalry. As the infantry passes the bridges, it must divide, and form columns, consisting of four battalions each, which must paſs between the redoubts, ha­ving cannon upon their flanks: the cavalry must paſs to the right and left through the interval of the two redoubts nearest the river, and form in order of battle upon the flanks of the columns ; the right wing with its right towards the ri­ver, and the left with its left. When all theſe columns ſhall be formed, and ready to march towards the enemy, the right and left of the two lines of cavalry must ſustain it ; and the right of thoſe of the right, as well as the left of thoſe of the left, will march to put themſelves in a line in preſence of the enemy : in this poſition the army must march towards the enemy, and attack him, if he is ſo raſh as to hazard an action ; and if he ſhould retire before the army is entirely passed, the passage will be the more easily effected.

See Plate DXIX. fig. 2. where A A A are bridges of boats. B, Redoubts which cover the bridges. C, A; battery, un­der cover of which the infantry work at the construction of the redoubts. A), A battery to prevent the enemy from annoying the army on its march. E, The march of the army. F, The artillery distributed among the brigades of infantry. G, Infantry, forming in columns to open on the oppoſite side through the intervals of the redoubts. H, March of the columns into the front of the redoubts, where they halt in order to give time for a part of the cavalry to form upon its flanks. I, A battery erected to facilitate the forming of the cavalry. K, Cavalry, which, in gaining the oppoſite ſhore, forms in order of battle and posts itself upon the flanks of the infantry. L, Eight battalions in column upon the right wing of the army, to go and examine the village, and attack the enemy in it, in case he ſhould be possessed of it. M, hussars and dragoons, who have taken possession of the height which is on the left wing of the ar­my. N, A brigade of infantry posted next the height, co­vering the left wing of the cavalry. O, The diſposition of the army marching up to the enemy.

From this diſposition it appears, that the army which at­tempts the passage is almost certain of ſucceeding ; it is ſheltered behind the redoubts during the passage of the bridges ; it has ground to form itſelf upon, and to ſhow itſelf in full strength. But it is ſeldom that a general has time to build the bridges and entrench them after this manner, when the enemy is on the oppoſite side with an in­tention of diſputing the passage : ſo circumstanced, he must endeavour to find ſome fords, and, under ſhelter of one or more iſlands, construct a number of rafts behind them ; he must endeavour to keep the enemy at a distance from thoſe places by marches and counter-marches ; and when that is done, he must cauſe the cavalry to ford over with grenadiers and labourers behind them ; ' theſe labourers must throw up entrenchments as fast, as they can, whilst fresh in antry is cauſed to paſs over upon rafts. Provided theſe entrench­ments can stop the enemy for ſome time, and contain infan­try enough to resist him the remainder of the army will be very ſoon passed : the cavalry will at the same time paſs at the fords which have been diſcovered, in order to cover the flanks of the infantry ; when it will spread over the plain, being itself protected by the infantry, as it leaves the en­trenchments in columns.

The passage of a river cannot be ſafely attempted, if the general does not provide for a defence, and take infinite pre­cautions to protect the army in its passage.

All that authors have said upon this subject, ariſes from this principle of Vigetius, which they ſeem to have com­mented upon, and to which they have applied different examples. “ As the enemy (says he) are accustomed to form ambuſcades, or to attack openly at the passage of rivers, the general ſhould possess himſelf beforehand of a good post on the oppoſite side, and entrench himſelf even on that on which he already is, to hinder the enemy from attacking his troops, ſeparated by the channel of the river ; and still, in order for greater ſecurity, the general ſhould cauſe the two polls to be entrenched and well palliladoed, that in case of