ditch before the reduits. u, Lodgments in the reduits, x, Bridge of faſcines, or a road to carry the cannon to the horn-work. *y,* Batteries againſt the defences of the ba­stion A. z, Batteries to breach this bastion. B, Passages over its ditch. C, Lodgments in the bastion A. D, Lodgments on the border of the ditch before the retrench­ment of the bastion A. E, Passages over the ditch before this retrenchment.

Plate DXXXVII. repreſents the plan of the lodgments made in the horn and crown work of Philipſburg in 1734.

A great deal more might be ſaid in regard to all theſe articles ; but for the particulars, we refer the reader to the Memoirs of Μ. de Vauban, which diſplay the whole extent of genius of that great man, and ſhow how capable he was of finding out expedients for ſurmounting all obstacles arising either from soil, situation, or different manners of forti­fying.

19. *To prevent ſuccours from being thrown into a town besieged.*

Not to interrupt the thread of the uſual operations of a siege, we have ſuppoſed that the general had taken every necessary meaſure to guard against all the attempts of the enemy, and to ſecure ſucceſs by the great ſuperiority of his forces. Sometimes, however, it may happen, that an enemy who was looked upon as too weak to relieve the place, ſhall prepare to attack the army of the besiegers, either in conſequence of drawing out most of the troops from the neighbouring garriſons, which are least expoſed, Or of having been reinforced from ſome other part. In ſuch case, there are two ways to follow. The first is, to wait for the enemy in the lines, and to hinder them from break­ing through : the second, to leave part of the army in the lines, in order to carry on the siege, and to oppose any ſallies of the garriſon ; with the other to go and meet the enemy, and fight them out of the lines.

Both theſe ways are ſupported by the opinion of differ­ent generals ; but the latter ſeems to have the most general approbation.

The inconvenience of waiting for the enemy in the lines, is the uncertainty on which side he intends to direct the attack ; for which reaſon the besiegers are obliged to be equally strong in all their posts ; and when the line is very extensive, the troops are at too great a distance from one another, to make any considerable resistance on the side where the enemy forms his attack. Moſt lines of circumvallation, that were ever attacked, have been forced ; ſo that both reason and experience ſeem to establish it as a maxim, that it is preferable to go and meet the enemy, and not to let him come within reach of the lines.

Without pretending, however, to determine ſo impor­tant a matter, it ſeems, that when a line is not very extenſive, it may be defended to an advantage. And, first, it is beyond all doubt, that if the troops behind the line know how to avail themſelves of the ſeveral circumstances in their favour, their situation is in many respects preferable to that of the assailants. The latter are expoſed to the fire of the line for a very considerable time before they can come up to the border of the ditch. This ditch must be fill­ed up : and all the while they are expoſed to the same fire, which must kill a great many of their men, and throw their troops into ſome confusion. And when they break into the line, they can make but a very narrow front ; for which reaſon, they may be charged both in front and flank by the troops within ; who, if they do their duty, must drive them into the ditch. For, ſuppoſe the first line of the defendant’s infantry next the ditch ſhould be obliged to give way, the horſe that are behind them may and ought to fall upon the enemy’s foot that have pierced through the line ; and as the latter cannot force their way but in ſome confusion, the former may easily drive them out again. We may there­fore conclude, that if the troops are ſensible of the many advantages of a good line, and are determined to defend it ; if the ſeveral parts are likewiſe well ſupported, and all the necessary precautions have been taken to prevent be­ing ſurpriſed ; it will be extremely difficult for the enemy to force it.

Thus, at the siege of Philipſburg, in 1734, prince Eu­gene reconnoitred the lines of circumvallation, and found them so well diſpoſed, that he never once attacked them. They formed a kind of irregular ſemicircle round the place, of which the Rhine might be considered as the diameter. They were defended by a kind of fore-ditch, and by wells betwen this fore-ditch and the lines, as may be ſeen in Plate DXXIX. If the prince had attempted to paſs over this ditch and theſe wells, he would have lost a great number of men by the fire of the lines. The wells were so near to one another, that there was no possibility of passing between them : they muſt have been filled up, as well as the fore­-ditch, with faſcines ; which would have been too tedious and dangerous an enterpriſe.

In ſuch a situation, therefore, the besiegers may wait quietly in their lines ; but if they ſhould be of ſo great an extent, as not to admit of being equally guarded, then it ſeems to be the ſafest way to draw out the troops, and meet the enemy, as marſhal Tallard did at Landau, in 1703. After he had defeated the army which was marching to the relief of the place, he returned and finished the siege. The duke of Vendome acted just in the same manner at the siege of Barcelona, in 1697. Having had intelligence that the marquis of Valeſco, viceroy of Catalonia, was preparing to attack him, he went out to meet that general, gained a corn- plete victory, and returned afterwards before the place, which was obliged to capitulate.

At the same time, we must allow that the ſafest way to conduct a siege, is to have a good army of obſervation advantageously posted ſo as to cover the siege, and be near enough to receive ſuccours from the troops employed be­fore the town, ſhould the enemy come to a reſolution of giving battle.

If the enemy do not think proper to attack the besieging army, they may probably try to throw in ſome ſmall ſuccours of troops and ammunition into the town. The way to prevent them is to make the circumvallation very exact, and not to leave an opening in it, under any pretext whatſoever.

The enemy may likewiſe attempt the raising of the siege, by making themſelves masters of the ſpot, or place, from whence the besiegers draw their provisions and am­munition. But before a general lay siege to a tovn, he ſhould take all the necessary precautions for ſecuring his magazines, covering his convoys, and guarding the ſeveral posts through which the enemy might march to attack him.

Another expedient the enemy may think of for raising the siege, is to attack ſome place of importance, which the besiegers have an interest in preſerving ; in order to engage them to march to its assistance, and to abandon the siege they have in hand. But this expedient ought to have been foreſeen, and every precaution taken to prevent it. How­ever, ſhould the enemy find means to engage in an enter­priſe of importance, and which requires an immediate relief, if a general thinks there is not time ſufficient to take the place he has laid siege to, and at the same time to oppoſe the ene­my’s designs, in that case he may raiſe the siege ; but for ſo doing, there ſhould be very cogent reasons. When king William laid siege to Namur, in 1695, marſhal Villeoy, in