abandoned by the enemy the entrance into the mine, and the Saucisson ; and upon finding it, as there is great pro­bability that they will, they are to cut it off, and thereby render the mine uſeleſs. Workmen may be likewiſe ſent into the passage round the traverſe, and there make a ſmall lodgment, which will be the safest that can be contrived when the enemy is ſo very near. After this an entrance is to be dug in the covert-way oppoſite thoſe traverſes, and conti­nued towards the bank of the ditch, under cover of the tra­verſe ; then a lap is to be made from each of the extremi­ties of this passage, that is, near the bolder of the connterſcarp ; which are to be carried along the rounding of the counterſcarp towards the middle, where they are to meet. This lodgment must be made very deep, that it may be no hinderance to that on the head of the glacis; and it is to be managed ſo as to leave between it and the border of the ditch a breadth of earth ſufficient to resist the cannon of the flanks and the curtain. This lodgment must be alſo covered with blinds, to prevent the effect of the grenades ; and it is of great use towards an opening into the ditch.

During the whole time that the besiegers are working upon this lodgment in the interior part of the covert way, they are to continue the lodgment on the top of the glacis, as far as the re-entering places of arms ; from whence the enemy may be driven by ordering a few companies of gre­nadiers to attack them, supposing they ſhould be ſo obstinate as to continue there, notwithstanding the fire of the ricochet batteries, and of the ſhells and stones. As ſoon as the enemy have entirely withdrawn themſelves, a lodgment must be made there, as we have already mentioned.

**12.** *Attack of the Covert-way ſword in hand.*

There is another method of driving the enemy out of the covert-way, more expeditious indeed, but at the same time more bloody, more precarious, and infinitely leſs ſkilful. This consists in making a ſudden attack on the whole front of the covert-way, in driving the enemy from thence by main force, and afterwards making good a lodgment.

There may be circumstances that ſhall abſolutely require this method of attacking the covert way; as when there is no possibility of erecting ricochet batteries to fire at its branches, nor at the faces of the works in the front of the attack ; or when it is preſumed that the enemy are not in a condition to withstand an attack of this sort ; or, in fine, when it is thought expedient to run any hazard in order to be matters of the covert-way a few days ſooner : on ſuch occasions it is uſual to take this method of attacking it, which is conducted thus :

When the reſolution is taken to attack the covert-way ſword in hand, the third parallel ſhould be made to advance as near as poſſible to the glacis ; and the more forward it is brought, the ſafer the attack. All along this parallel ban­quettes are to be made, step-fashion, to the top of its para­pet, that the troops designed for the attack may paſs over it with eaſe. At the back of this line, and in the very line itſelf, a great quantity of materials, as tools, gabions, faſcines, ſand-bags, &c. must be get ready, that nothing may be wanting to make the lodgment with all expedition, after driving the enemy out of the covert-way. A strong party of grenadiers is ordered, and placed along the third parallel, four or six deep, and the workmen behind them on the back of this parallel with their tools, gabions, faſcines, &c. Care, moreover, is taken, that all the other parts of the trenches be well furniſhed with troops to ſupport the grenadiers, if there ſhould be occasion ; and to fire at the enemy’s defences wherever they appear: the grenadiers must alſo be provided with hatchets, to cut down the paliſades of the **covert-way.**

The guns and mortars must be ordered to be ready to ſupport the attack with their whole fire.

A signal is to be agreed on for all the troops that are to commence the attack, to move at the same time, and to fall upon the enemy. This signal is to consist in firing a cer­tain number of cannon, or a certain number of bombs, and at the last cannon-shot, or at the last bomb, the troops are to move.

The sugnal being given, all the troops of the third parallel are to move at the same time, and to paſs quickly over the parapet of the parallel, and to march directly to the covert­way ; which they enter cither through the ſally-ports or passages made by the guns, or elſe the grenadiers cut down the paliſades with their hatchets. As ſoon as they have entered, they charge the enemy vigorously ; and when they have obliged them to abandon ſome of the angles, the en­gineers set the workmen about making a lodgment on the ridge of the glacis, oppoſite to that part of the covert-way which the enemy have abandoned, and within three fathoms of the inside of it. This lodgment, as we have obſerved, is made with gabions, which workmen lay on the glacis on the side of one another. The joints are covered with ſand- bags, or with ſap-faggots. These gabions are filled with earth and covered with faſcines ; and a top of all you are to throw earth taken out of the glacis, by digging and widen­ing the lodgment ; and of this a parapet is raiſed to ſcreen the troops as quick as poſſible from the direct fire of the place, and traverſes are to be made everywhere to prevent the enfilades, as may be ſeen in Plate DXXXIII. fig. 5. While this is doing, the batteries of the trenches are to fire inceſſantly upon the defences of the place, in order to disturb the enemy, and to abate as much as poſſible the briſkness of their fire upon the workmen and the lodgment.

When the troops employed in the attack have driven the enemy from the covert-way, or from their places of arms, they retire behind the lodgment, where they kneel down till it is in a condition to cover them. Sometimes it ſhall happen that the enemy, who was ſuppoſed to have been driven from the covert way, will return to the charge, and oblige the besiegers to renew the attack, by overthrowing the lodg­ment and falling upon the troops unawares. This attack may be renewed ſeveral times, and vigorouſly diſputed, when there happens to be a strong garriſon. In this case the be­siegers must exert their bravery, and reſolutely encounter every obstacle raiſed by the enemy.

It must be allowed that this manner of attacking is very bloody : for the besiegers must move almost the whole breadth the glacis uncovered and exposed to the whole fire of the place. It is indeed in every reſpect so inferior to the for­mer, that, according to Μ. Vauban, it never ſhould be at­tempted but for the most essential reaſons. Night is the best time for it, because the besiegers are leſs seen from the place, and of course the fire of the beſieged is leſs danger­ous : yet there are generals who undertake it by day. There is nothing settled in regard to this article ; they are at liberty to act as they judge most proper, according to the circumstances of time and place.

**13.** *Of the Batteries on the Covert-way.*

When the enemy are entirely driven out of the covert­way, the next thing to be done is the erecting of bat­teries, in order to ruin the defences of the place, and to make a breach.

As it is necessary for the besiegers to make themſelves ma­tters of the half-moon C (Plate DXXXIII. rig. 6.) before they can come to the body of the place, which is flanked or defended by part of the faces of the bastions A and B op­poſite to its ditch ; they must begin with erecting batteries