permit ; this is the surest way to keep the besiegers in awe, and to oblige them to advance with the greatest circumſpection.

Besides the galleries and mines which ought to be under the glacis, the besieged may alſo lay oppoſite to its angles large planks, stuck full of very long nails, with the points upwards, to incommode the enemy in passing over the gla­cis. Theſe planks ought to be ſtrongly fixed, to prevent their being easily taken away. The burying of caissons in the glacis is alſo productive of a good effect ; but they ought never to be placed nearer than six or eight feet to the infide of the covert-way, lest they ſhould do any damage to the troops that defend this poft.

When the enemy endeavour to make a lodgment on the glacis, the garriſon must repeat their ſallies with greater vi­gour ; which may be done without any inconvenience, be­cauſe of the facility of retreating. When the troops are returned from the ſally, fire is ſet to the chambers and caiſsons, which will greatly diſconcert the besiegers. If the chambers are well diſpoſed, they must hurt their lodgments prodigiously ; and as ſoon as they are ſprung, the besieged may fall upon the enemy, this being a favourable opportu­nity for ſurprifing them in diſorder, and conſequently of destroying part of their works. This manner of proceeding ſhould be often repeated, in order to fatigue the besiegers, and to retard the taking of the covert-way.

When the enemy are ready to storm it, the garriſon must prepare to give them a warm reception. The difficulty of making a lodgment in the covert-way may be increaſed by à double row of paliſades : the second ſhould be lower than the first, to the end that the enemy may not perceive them. Theſe two rows ought to be at the distance of four or five feet from one another, to prevent the besiegers from jump­ing over them into the covert-way. Between them may be made a ſmall ditch ; into which most of the enemy’s grenades will fall, and cause leſs miſchief to the troops. Care muft be taken to make strong retrenchments in the places of arms, either by raffing a parapet withinside, and parallel to their faces, with a ſmall ditch at the foot of it, or by simple rows of paliſades, which will hinder the ene­my from forcing their way ſo easily as they would otherwise be capable of doing. In each place of arms there ſhould be one or two barrels of powder, with balls and ſmall-arms necessary for the defence of the covert-way.

All the batteries must be got ready to fire with the ut- most briskness upon the enemy, when -they are at work upon their lodgment. Every part of the place that looks into the covert-way ought to be lined with troops, who are to fire upon the besiegers ; but there ought to be no troops in the parts oppoſite to the places of arms, that the troops posted there may not be hurt by the fire from the body of the place.

The garriſon ſhould endeavour to be informed by deſerters at what time the enemy intend to make their attack ; the motions of the latter may be alſo obſerved by perſons posted on steeples ; and as ſoon as the troops are perceived to make an extraordinary motion, and the trenches to be filled more than uſual, this is a sign that they are going to attack. The vicinity of the enemy’s works may alſo en­able the besieged to judge of their forwardneſs ; and all this together direct them to take ſuch meaſures as are proper forgiving a warm reception to the besiegers.

As ſoon as the garriſon perceive that the enemy are marching out of their trenches, they ſhould keep firing upon them continually with great and ſmall. arms from all the works facing the attack. This will destroy a great many of their men before they can reach the palisades : the two rows of which in the covert-way will prevent their jumping into it directly. They will be under a necessity of breaking them ſuccessively with hatchets ; and while this is doing, a general diſcharge is to be made from the bat­teries of the town, which will do great execution. When, after a vigorous resistance, the garriſon find themſelves hard preſſed by the enemy, they may abandon the covert-way, and retire into the places of arms ; and while the besiegers are working upon their lodgment, they will be expoſed to the fire of the place, which takes them in front ; and to that of the places of arms, by which they are taken in flank; ſo that their loſs must increaſe considerably. If they have mines ready, as we ſuppoſe they have, they must ſpring them, after having ſuffered the enemy to work for ſome time upon their lodgments ; and after having kept firing against them continually with great and ſmall arms, then immediately they ſhould make a strong ſally from the places of arms, and taking advantage of the diſorder into which the besiegers must inevitably be thrown, they will oblige them to abandon the covert-way.

If there is no possibility of hindering the enemy from making lodgments on the crest of the covert-way, or, which is the same thing, on the ridge of the glacis, the besieged must endeavour to retard them, and to dispute as long as possible their taking possession of the places of arms. On this occasion fougasses are employed with ſucceſs, and ſhould be repeated ſeveral times if the ground will permit. When the besiegers have once completed their lodgment, and ſupported it in a proper manner, they want nothing further than a little time to extend themſelves, and to become masters of the covert-way. The obstinacy of the besieged can only retard, but not abſolutely hinder, the taking of this outwork.

Let us ſuppoſe that the enemy resolve to approach the covert-way by sap, and that they have raiſed cavaliers in the trenches to plunge into this outwork, the besieged must strive to retard this operation by every stratagem imaginable ; for when the cavaliers are once constructed, it will be very dangerous to abide any longer in the covert way. They must stop the besiegers at every step with mines ; they must haraſs them with a constant diſcharge of fire-arms, and diſpute every inch of ground, defending themſelves be­hind every traverſe, and in the places of arms, as well as they can, without running too great a riſk of having their retreat cut off.

6. *Of the Defence of the Passage over the Ditch before the Half-moon.*

The enemy having made themſelves masters of the covert­-way, and perfected all their lodgments, will erect their bat­teries for making a breach, and prepare for the deſcent into the ditch. All this while the besieged must keep firing both with their great and ſmall arms, in order to incom­mode the enemy in the construction of their batteries. If the ditch is dry, the ſoldiers may mount with ladders along the counterſcarp, and from thence throw grenades into the enemy’s works ; and when they cover themſelves in the covert way with ſand-bags, gabions, &c. against the fire of the place, theſe very ſoldiers ſhould, with great ſap-hooks, pull down part of them, and afterwards jump nimbly into the ditch, leaving the enemy expoſed to the fire of the town while they are putting their materials again into order. Mines may be likewiſe uſed here with great advantage ; they furnish various means to haraſs the enemy, to obstruct their works, and to make them loſe time and men.

The batteries of the besiegers being destroyed by mines made under them, must oblige them to loſe a great deal of time in repairing them, and in endeavouring to make themselves masters of the mines, otherwise they can never be