gerous ; nay, it is impossible to be done at all without being protected by a very brisk firing, not only from all the can­non of the covert-way and the ricochet batteries, but more­over from the lodgments on the glacis and thoſe on the co­vert-way.

Plates DXXXIV. and DXXXV. will illustrate all that we have been saying upon this head, concerning the deſcent and passage over the ditch.

Plate DXXXIV. fig. 1. exhibits the plan of the deſcent under ground, and that of its opening into the dry ditch. Fig. 2. repreſents the profile of that deſcent ; the opening of which is made at the lower part of the ditch. Fig. 3. is a perſpective view of the opening of this deſcent, ſeen from the bottom of the glacis : and fig. 4. ſhows in perſpective the opening of the same deſcent, ſeen from the top of the breach.

Plate DXXXV. fig. 1. is the plan of the passage over a wet ditch in the open air; that is to say, the gallery of which is an open sap. A is the opening of it. You see in B, towards its opening, the blinds that are laid on its up­per part, to ſupport the faſcines with which it is covered. On theſe blinds, at first, is laid a bed of faſcines, ranged ac­cording to the length of the gallery ; over this first bed is laid a second, wherein the faſcines are ranged according to the breadth of the gallery, as you see in B and C. D is the epaulement of faſcines, which covers the passage against the fire of the place, by which it is flanked. E is part of the bridge of faſcines ; and F is an elevation alſo of faſcines, in­tended to cover the head of the work, and to ſecure it from the immediate fire of the place. Fig. 2. repreſents the pro­file of this deſcent into the ditch. Fig. 3. gives its opening ſeen in perſpective from the country ; and fig. 4. its opening into the ditch, alſo in perſpective, as it appears from the top of the breach.

15. *Of the attack of the Ravelin, or Half-moon.*

The passage over the ditch before the half-moon being effected on both sides, and a breach made 14 or 15 fathoms wide, preparations are made for the assault. For this purpoſe a large quantity of materials is collected from all the neighbouring lodgments. Endeavours are uſed to render the breach practicable, by making the slope eaſy. The can­non continue playing, in order to throw down the parts of the revetement that may be yet standing. Very good uſe may be also made of shells fired point blank ; for they are easily buried in the breach, the earth of which has been already broke up and shaken by the cannon ; and as they burst upon that earth, they produce the effect, as it were, of ſmall mines. Howitzers may likewiſe be uſed with ſucceſs on theſe occasions.

In order to render the breach more practicable, ſome miners, or a ſerjeant with a few grenadiers, are ſent to level it with hooks. The fire from the lodgments and batteries will hinder the enemy from appearing on their defences ; or if they ſhould, they must do it with great circumſpection, which renders their fire leſs dangerous.

If the enemy have made any galleries along the face of the half-moon, and oppoſite the breaches, the miners may go and diſcover them, in order to stop them up, or to cut off the match, or to drive away the enemy : if they cannot find them, they spring ſeveral mines ; which being often re­peated, must needs occasion ſome disorders in the galleries and mines belonging to the besieged. Every thing being ready for making a lodgment in the half-moon, that is, for taking possession of the breach ; the materials being at hand, in or­der to be removed hither with eaſe and expedition ; the bat­teries and lodgments of the covert-way being in a condition to fire away briskly;—a signal is agreed upon with the offi­cers that command thoſe batteries and lodgments, to give them notice to fire, and to leave off whenever it is thought proper. This signal is generally a flag raiſed in the former case, and lowered in the latter. All this being settled, and the breach, as we obſerved, made practicable, two or three ſappers are ſent to the extremity of the breach next to the place, there being generally a kind of ſmall cover or cavity in this part ; there they begin a lodgment for themselves, and for ſome more, who are sent after them ; when there is room to receive them, they make them mount, and inſensibly extend the lodgment upon the top of the breach ; and thus they proceed till they make a lodgment towards the point, which is generally called a *magpye's nest.* While theſe ſappers are at work, the fire of the batteries and the lodgments ceaſes ; but when the enemy attempts to attack the workmen in order to destroy their lodgments, they must retire as quick as poſſible ; and then the colours being rai­ſed, the batteries fire upon them with the utmost vivacity, to oblige them to quit the upper part of the breach.—∙ Upon this the colours are lowered, the fire ceaſes, the ſap­pers return to repair the mischief that was done to their lodgment, and try to enlarge and strengthen it.

This way of proceeding must be continued till the lodge­ment is in a state of defence ; that is, till it can hold a num­ber of troops ſufficient to awe the enemy, and to withstand any attack that may happen to be made against it. The besieged, before they entirely quit the half-moon, will ſpring what mines they have ready there. As ſoon as this is done, the besiegers ſhould directly lodge themſelves in the excavations made by thoſe mines, or at least ſome defence ſhould be made there, to hold a few ſappers, and to forward the lodgments of the inside of the work.

The lodgment of the point is made in the form of a ſmall arc, the concavity of which is turned towards the place. From each of its extremities a lodgment is carried along the faces of the half-moon, on the platform of its rampart, at the foot of its parapet. This lodgment is sunk deep in the earth of the rampart, to the end that the ſoldiers may be the better covered against the fire of the place ; there must be alſo traverſes to ſecure it from the enfilades, as was done in regard to the lodgment on the glacis. Withinside the half-moon lodgments are alſo made, which traverſe the whole breadth thereof, as may be ſeen in the half-moon *C,* Plate DXXXIII. fig. 6. They ſerve to command the com­munication between the tenaille and the place ; of courſe to render that communication more difficult, and to hold a ſufficient number of troops to resist the enemy, ſhould they have any design to return and reposses themſelves of the half-moon.

What we have been obſerving, in regard to the attack of the half-moon, is only when the besiegers intend to take it by the sap, or with pick-axe and ſpade ; But ſometimes they go about it in a more expeditious manner ; for when the breach is made ſo as the troops may mount to enter the half moon, they advance boldly to the assault, just as in the attack of the covert-way, ſword in hand, and endeavour to come up with the enemy, and to drive them entirely out of the work. This attack is very dangerous, and may cost a great many men, when there happens to be a brave garrison, who will not easily yield their ground. But there are frequent cases in which it may be, thought prudent to adopt this meaſure, in order to accelerate a few days the taking the half-moon. As ſoon as the besiegers are masters of the up­per part of the breach, they make a lodgment there in a hurry with gabions and faſcines ; and while it is making, as alſo while they charge the enemy, and oblige them to abandon the upper part of the breach, ſome ſoldiers are ſent to diſcover the mines, which the besieged are ſupposed to have made