

## LAYING OUT ORNAMENTAL GROUNDS.

One of the most important items in landscape gardening is the location of roads, about which there are some axioms laid down that it will be well to remember.

First: Keep the approach well away from boundary lines; the reasons are obvious.

Second: Never proceed in a straight line, nor up and down hill.

Third: When possible select the lowest level for an approach; because the higher ground shows better from it.

Fourth: Let there be an apparent reason for every curve; a tree, a rock, or the side of a hill; but, no meaningless bends. In short, study to conceal the hand that guides. The margin of a valley offers the most suitable route. When girt with rocks, and trees and cliffs, there are nooks of picturesque beauty at every turn. The bends of a stream, the near and retreating hills,

nary examination. He studies it like the good doctor scans his patient, that he may make no fatal mistakes. Every railway in the country depended on these explorations. The most experienced engineer always went forward, sometimes in the saddle, often on foot, to search for the best route, while the surveyors followed and recorded his work. There were times, of course, in cases of doubt, when elevations were nearly alike, that nothing but an instrumental test settled the question. An apparent looseness in the method is not what it seems to the uninitiated; for a good engineer will carry vertical and horizontal lines in the eye from long practice. Signs unnoticed and unknown by other men; the booming of distant hills, or the ripples of a stream, indicates the varying changes of height by which he corrects his mental horizon. And why not? since dumb animals are sure to go around a hill rather than over it. The paths of buffalo were found unerring guides for the location of transcontinental railways when no other routes were passable.

mitted to others for completion, which we suppose will not often happen, as the proprietor would naturally prefer to oversee its execution. In that case, if he has mastered the situation, and possesses an eye with the least bit of mechanical certainty in its measurement, no other aid, besides a good tape-line, will be needed for a very fair location. But if he distrusts himself, he will do well to call in the aid of a professional landscape gardener to settle the outlines of the work, leaving the details to be filled in at leisure.

Avoid much road making; the fewer there are the better for the unity of the grounds. We have seen places cut up with numerous paths and roads ending nowhere? When they lead to a fine point of view, the garden, a waterfall, or the conservatory, they are not meaningless. Roads are troublesome to keep clean, which is another good reason for limiting their number. In a preceding paper the method of building a road-bed was fully described. One of the directions will bear repeating, that it may be re-



Fig. 5. Rounding the Point of a Hill



Fig. 6. Bad Rock Work



Fig. 7. Natural Rock Work

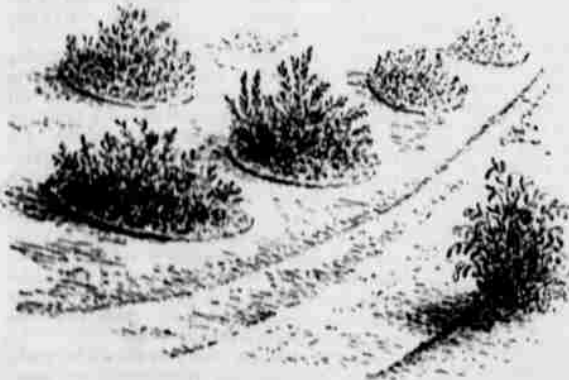


Fig. 8. Flower Beds along the Driveway



Fig. 9. Shrubs beside the Walks.

the bold projecting cliffs, are so many studies for all times and generations to admire. Sometimes we cannot avoid carrying our road through the point of a hill. Let it not be an angular cutting; but finish the work like that in Fig. 5, and it becomes an ornament of rounded outlines.

From the entrance of the grounds the approach, if not level, must always ascend. To decline at the gateway is fatal. Never cross a hill; go around. Let the course wind easily and naturally around all obstacles, with curves flowing in graceful lines, and avoiding straight ones. If at any point where a bend seems fitting, and there appears no natural obstacle to justify it, do not build a pile of stones for rockwork like Fig. 6. Such shams offend the eye. A formal pile is not natural, nor is there any beauty in it. Plant a tree, or a clump of trees. Rocks covered with moss and vines, or overshadowed by a tree, are pleasing objects. Fig. 7 is an example of the natural.

For the encouragement of the amateur the writer will mention that no engineer plunges into his work without long and careful prelimi-

First walk over the ground and carefully study its contour. Let the eye scan every undulation of its surface with a view to locating the approach, as nearly as possible with regularity of grade, without much regard in the preliminary view, as to its directness. Having mastered the route which seems best adapted, go over it again with paper and pencil in hand, trace its curves; mark the points on the ground with stakes, and make a thorough working map. In passing frequently back and forth take care to make such improvements as upon reflection seem needed. By the time these surveys are completed and transferred to the working map, which should embrace a plan of all the grounds, the situation of the approach, relative to the other parts of the lawn, can be studied at leisure; then such changes can be made in direction and grades as seem best. Without adopting this plan there will be no design—no base to work from.

Having settled the line of approach, such instrumental measurements may be taken as are necessary to define the curves and grade lines. This is only required when the work is to be com-

membered: Do not cross a stream where an embankment will be required. Rather deviate from the direct course by following the base of a hill to some point where the crossing may be effected with higher banks.

As respects the embellishment of level sites, the owner must mainly depend on smooth shaven lawns, and trees, and flowers. The approach must not be straight, nor should it wind with unmeaning curves. Its beauty will be enhanced by the skillful planting of rare kinds of trees and shrubs, in addition to well-known native varieties. Besides the architectural improvements, level land can only be adorned with the simple forms of graceful trees and flowers. Everything, therefore, depends upon their management in the composition of the landscape. It would mar its expression if we rear a pretentious structure which is not in harmony with the situation. A mansion in the Italian style, with sky-lines of low, broad roofs, bracketed cornices, and clusters of ornamental chimney tops, would be in keeping with its expression of still life and home.

There seems to be good reason for bestowing