

THE OLIVE-TREE AND THE WILD-OLIVE.¹

But if some of the branches were broken off, and thou, being a wild olive, wast grafted in among them, and didst become partaker with them of the root of the fatness of the olive tree; glory not over the branches: but if thou gloriest, it is not thou that bearest the root, but the root thee. Thou wilt say then, branches were broken off, that I might be grafted in. Well; by their unbelief they were broken off, and thou standest by thy faith. Be not high-minded, but fear: for if God spared not the natural branches, neither will he spare thee. Behold then the goodness and severity of God: toward them that fell, severity: but toward thee, God's goodness, if thou continue in his goodness: otherwise thou also shalt be cut off. And they also, if they continue not in their unbelief, shall be grafted in: for God is able to graft them in again. For if thou wast cut out of that which is by nature a wild olive tree, and wast grafted contrary to nature into a good olive tree: how much more shall these, which are the natural branches, be grafted into their own olive tree?—Romans xi. 17-24.

FEW passages in St. Paul's writings have given rise to so much erroneous comment as the above; and the widespread idea that he was unobservant and ignorant of nature and blind to the ordinary processes of the world around him seems to be mainly founded on the false views that have been taken of his allusion to the process of grafting. The misunderstanding of this passage has caused such far-reaching misapprehension that a careful discussion of it seems to be urgently called for. It is advisable to treat the subject in a wider view than may at first sight seem necessary; but the wider treatment is forced on the writer by the necessities of the case and the demands of clearness, though his first intention was only to write a short statement on the subject. The unfortunate omission in Dr. Hastings' *Dictionary of the Bible*, iii. 616, of any description of the cultivation of the Olive, closely though the

¹ I have consulted my colleague Professor J. W. H. Trail, Professor of Botany, on the subject of this paper; and he has cleared up several points for me; but I refrain from quoting his opinion on any special point, lest I should be mixing my own with his more scientific ideas.

subject bears on the understanding of many passages in the Bible, at once compels and excuses the length of the treatment here. Dr. Post, who wrote the article *Olive* in the *Dictionary*, would have been an excellent authority on this subject, on account of his long residence in Syria; but by some oversight he has omitted it entirely. A fuller account of the tree is given by Dr. Macalister under *Food* (ii. 31) and *Oil* (iii. 591); but the culture of the tree could not well be treated under those headings, and is therefore wholly omitted in the *Dictionary*. Under *Grafting* Dr. Hastings himself refers forward to *Olive*, anticipating the account which is not there given after all. Moreover Dr. Post's article *Oil-Tree* (iii. 592) states views which are in some respects so diametrically opposed to ordinary opinions and supported by arguments which are in some respects so questionable, that the subject requires further treatment.¹

The expression "questionable," which has been applied in the preceding paragraph to a statement made by so good an authority as Dr. Post, needs justification. He says (iii. 591), that, when Nehemiah viii. 15, in a list of five kinds of foliage brought from the mountains "to make booths," mentions both Wild-Olive and Olive, "the difference between the latter and the Wild-Olive is so small, that it is quite unlikely that it would have been mentioned by a separate name in so brief a list of trees used for the same purpose." Accordingly he infers that the Hebrew word, which is there translated "Wild-Olive" is the name of a different tree, and that Wild-Olive is a mistranslation.² It is difficult to justify this inference. Pausanias ii. 32 mentions Olive and Wild-Olive in a list of three trees, Artemidorus iv. 52 mentions them as two different kinds of foliage used

¹ Mr. McLean's articles *Olive* and *Oil-Tree* in *Encyc. Bibl.* are good but very brief. He is bold enough to hint that there is no proof of the recently invented British view that the Oleaster is *Eleagnus angustifolia*.

² It will be necessary to discuss the nature of the Wild-Olive more fully in the second part of this article.

for garlands. The Olive crown was considered by the ancients essentially different from the Wild-Olive crown, sacred to a different deity and used for a different purpose. Many modern botanists (as Professor Fischer mentions in his treatise¹ *der Oelbaum*, p. 4 f.) consider that Olive and Wild-Olive are two distinct species, wholly unconnected with one another. It seems natural and probable that the order should be issued, as Nehemiah says, to bring both Olive and Wild-Olive branches: had either name been omitted the order would have excluded one of the most abundant and suitable kinds of foliage.

I do not pretend to be capable of giving the required treatment satisfactorily; but I may at least be able to call attention to it, point out defects in the recognized English authorities and in the statements which are repeated by writer after writer as if they were true, and lead to a more thorough treatment by some better scholar. Even, if I should in turn make some mistakes in a subject in which I am only an outsider, devoid of scientific knowledge, these will be corrected in the fuller discussion which will hereafter be given. The present article is written by a geographer and historian, not by a botanist; but the modern conception of geography, and especially of historical geography, compels the writer in that subject to touch often on historical botany, the diffusion of trees, and the discovery and spread of the art of domesticating and cultivating and improving fruit trees.

Clearness will probably be best attained by stating first of all the interpretation which is suggested by the actual facts of Olive-culture, and thereafter it will be easier to see how mistaken are many of the inferences that have been drawn from misinterpretation of the passage. I had long been puzzled by it, feeling that there was something in it which was not allowed for by the modern scholars who dis-

¹ This work is more fully described below.

cussed it, and yet being unable to specify what the omitted factor was. The perusal of an elaborate study of the Olive-tree and the Olive-culture of the Mediterranean lands by Professor Theobald Fischer, who has devoted thirty years to the study of the Mediterranean fruit-trees, revealed the secret. Professor Fischer has discovered a fact of Olive-culture which had escaped all mere tourists and ordinary travellers, and even such a careful observer as Rev. W. M. Thomson in that excellent old work *The Land and the Book* (which deserves a higher rank than many much more imposing and famous studies published by more recent scholars and observers, who had not seen nearly so much as Mr. Thomson did during his thirty years' residence, and who in respect of accuracy about facts and details of Palestine sometimes leave something to be desired).

No better authority than Professor Fischer could be desired or obtained. He knows the subject in all its breadth better probably than any other living man: an experienced practical Olive-cultivator might surpass him in certain points of knowledge as regards one country, but Professor Fischer has studied it for all countries and all times. He has created a method and a sphere of research, and gathered around him a school to carry out his system of observation and study. As regards Palestine, but no other Mediterranean country, he points out that the process which St. Paul had in view is still in use in exceptional circumstances at the present day. He mentions that it is customary to reinvigorate an Olive-tree which is ceasing to bear fruit, by grafting it with a shoot of the Wild-Olive, so that the sap of the tree ennobles this wild shoot and the tree now again begins to bear fruit.¹

¹ An das noch heute in Palästina geübte Verfahren, einen Ölbaum, der Früchte zu tragen aufhört, zu verjüngen, indem man ihn mit einem der wilden Wurzeltriebe pflöpft, so dass der Saft des Baumes diesen wilden Trieb veredelt und der Baum nun wieder Früchte trägt, spielt der Apostel Paulus an *Römer* ii. 17 (*der Ölbaum*—Petermanns Mitteil., Ergänzungsheft No. 147, p. 9).

It is a well-established fact that, as a result of grafting, both the new shoot and the old stock are affected. The grafted shoot affects the stock below the graft, and in its turn is affected by the character of the stock from which it derives its nourishment. Hence, although the old stock had lost vigour and ceased to produce fruit, it might recover strength and productive power from the influence of the vigorous wild shoot which is grafted upon it, while the fruit that is grown on the new shoot will be more fleshy and richer in oil than the natural fruit of the Wild-Olive. Such is the inevitable process; and it is evident from the passage in *Romans*, even without any other authority, that the ancients had observed this fact and availed themselves of it for improving weak and unproductive trees. The words of *Romans* xi. 17 show the whole process employed in such cases; the tree was pruned, and after the old branches had been cut away the graft was made. The cutting away of the old branches was required to admit air and light to the graft, as well as to prevent the vitality of the tree from being too widely diffused over a large number of branches.

This single passage would be sufficient proof to one who brings to the account a right estimate of St. Paul's character as a writer; but further independent ancient authority corroborates him, though set aside by modern writers. Columella v. 9 says that when an Olive-tree produces badly, a slip of a Wild-Olive is grafted on it, and this gives new vigour to the tree. This passage suggests that the tree was not very thoroughly cut down, for the intention is not to direct the growth entirely to the graft alone, but to invigorate the whole tree by the introduction of the fresh wild life. Columella does not say whether the engrafted shoot was affected by the character of the root; but St. Paul's statement that it was so affected is confirmed by the modern views as to the effect

of grafting, viz., that the old and the new parts are affected by one another. The fully grown tree is presumably able to affect more thoroughly the engrafted wild shoot, whereas in the first grafting the young tree was thoroughly cut down, and the whole was more affected by the character of the engrafted shoot, which constitutes the whole tree.

A frequently quoted passage of Palladius, who, though he wrote in verse about grafting, was also a recognized authority on agriculture and horticulture, confirms Columella and St. Paul that the Wild-Olive graft invigorated the tree on which it was set, though he adds, apparently, that the wild graft did not itself bear the olives which the rest of the tree bore: this last statement is probably a rhetorical flourish, and he probably means only that the Wild-Olive had never borne olives such as it caused the re-invigorated tree to bear. The fruit of the Wild-Olive was poor and contained little oil.

The comparison which St. Paul makes is sustained through a series of details. The chosen people of God, the Jews, are compared to the Olive-tree, which was for a long time fertilized and productive. The cause of their growth and productiveness, the sap which came up from the root and gave life to the tree, was their faith. But this chosen people ceased to be good and fertile; the people lacked faith; the tree became dry, sapless and unproductive. Surgical treatment was then necessary for the tree; the more vigorous stock of the Wild-Olive must be grafted on it, while the sapless and barren branches are cut off. In the same way many of the chosen people have been cut off because of their lack of faith; and in the vacant place has been introduced a scion of the Gentiles, not cultivated by ages of education, but possessing some of the vigour of faith. The new stock makes the tree and the congregation once more fertile. But the new stock is helpless in itself, unproductive and useless, a mere Wild-

Olive; only in its new position, grafted into the old stock, made a member of the ancient congregation of God, is it good and fertile; it depends on and is supported by the old root. Faith, or the want of faith, determines the lot of all; if the Gentiles, who have been introduced into the old congregation of God, lose their faith, they too shall be cut off in their turn; as every unproductive branch of the tree is rigorously eliminated by the pruner. If the Jews recover their faith, and continue not in their unbelief, they shall be restored by being re-grafted on the tree. They are naturally of noble stock, and the regular natural process of grafting the Olive with noble stock shall be carried out afresh for them. They have far greater right, for they are the chosen people, and the noble scion is the ordinary graft; and if God can, contrary to the ordinary process, graft the Wild-Olive scion into the Olive-tree in certain exceptional circumstances, much more will He give a place to all true Israelites in the congregation and graft the noble scion into the tree.

This complicated allegory, carried out in so great detail, suits well and closely; and the spiritual process is made more intelligible by it to the ancient readers, who knew the processes of Olive-culture, and esteemed them as sacred and divinely revealed. Here, as often in the Bible, the reverence of the ancients for the divine life of the trees of the field must be borne in mind in order¹ to appreciate properly the words of the Biblical writers. It is proverbially difficult to make an allegory suit in every part; the restoration of the amputated branches of the Olive cannot actually, take place; but here St. Paul invokes superhuman agency for God can re-graft them on the stock, if they recover faith. Does he mean to suggest that, while this is possible with God, it is not likely to take place in practice, for the ejected

¹ On this subject I may be permitted to refer to "The Letters to the Seven Churches," 1904, p. 247.

Jews show no more sign of recovering faith and so establishing a claim to restoration than the amputated branches show of recovering vigour and deserving regrafting on the old stock? Just as the process does not occur in nature, so the spiritual process is impossible except as a miracle of God's action. If we could press this suggestion, then the allegory would suit with quite extraordinary completeness.

The reference to nature in xi. 24 is probably to be understood as we have explained it in the preceding paragraph. Commonly, the produce of grafting was spoken of by the ancients as contrary to nature, and was compared with the adoption of children by men, which also was contrasted with the natural process of generation. But here the ordinary and invariable process of grafting with a noble scion is called natural, while the unusual and exceptional process of grafting with the Wild-Olive is said to be contrary to nature. The changed point of view is obviously justified, and needs no further explanation.

I do not know with certainty how far it is safe to press the expression used by St. Paul, "some of the branches were cut off." It is a well-known and familiar fact that every young Olive-tree when grafted with a shoot of the cultivated Olive is pruned and cut down so thoroughly that hardly anything is left of it but one bare stem, on which the new scion is grafted. Thus the entire energy of the young tree is directed into the new graft. Does St. Paul imply that, in the process of grafting at a later period of growth, when the tree has become enfeebled, only some of the old branches were cut away, while others were allowed to remain? Both Columella and Palladius seem favourable to this interpretation. I should be glad to receive correction or additional information on this point; and I mention it here chiefly in the hope of eliciting criticism. What is the exact process, when this exceptional kind of grafting takes place? How far is the

fruitless old tree cut down? Is the tree left still a tree with some branches, or is it cut down to a mere stock. It is well established according to Professor Fischer, p. 31, that every fifty years the Olive ought to be closely pruned, and thoroughly manured in order to give it fresh vigour; and it is natural to suppose that the still more drastic method of re-grafting with Wild-Olive was connected occasionally with this process of rejuvenating and reinvigorating the worn-out tree, and that it would be accompanied by a thorough pruning and cutting down, though this does not imply a reduction of the tree to a single stem, as in the first grafting of the young tree at the age of seven to ten years.¹

The idea in this re-grafting evidently is that re-invigoration will be best accomplished by mixture with a strange and widely diverse stock; and this idea has sound scientific basis. It is not strange that the ancient rules of culture implied the knowledge of such secret and obscure facts. The account given in the present writer's *Impressions of Turkey*, p. 273, of the rules for maintaining the highest quality in the Angora goat (as observed in its original home) may be compared here. It is necessary to recur occasionally to the natural ground-stock, the original and fundamental basis of the Olive; and though the existing Wild-Olive is not exactly the fundamental and original stock, it is as near it as the possibilities of the case permit, and crossing with the Wild-Olive is the only way possible now of replacing the weakened original elements in the cultivated tree.

Most of the modern writers on this subject have been betrayed by the assumption (which they almost all seem to make²) that St. Paul is here speaking of the ordinary process of grafting the young Olive-tree. This grafting is a

¹ The nature of the Wild-Olive is discussed in Part II.

² Ewbank (quoted by Howson in Smith's *Dictionary of the Bible*, ii. 622) has taken so far the right view; but I have not access to his Commentary.

necessary and universal fact of Olive-culture. An ungrafted tree will never produce really good fruit, however noble be the stock from which it is derived. The process is familiar ; and yet it must be briefly described in order to eliminate a certain error. The Olive is grown from a shoot of a good tree, planted in well-prepared ground, carefully tended and treated. When the young tree is seven to ten years old, it is grafted with a shoot from the best stock procurable. The Wild-Olive plays no part whatsoever in the life of the ordinary Olive-tree, which is of noble stock and grafted anew from noble stock.

St. Paul was not referring to that process when he used the words of xi. 17. He was quite aware of the character of that process, and clearly refers to it in xi. 24, when that verse is properly understood. But in xi. 17, he describes a totally different and, as he clearly intimates, unusual process, employed only in exceptional circumstances (as Columella also implies), when the Wild-Olive was called in to cure the inefficiency of the cultivated tree.

Two different kinds of unfavourable comment are made on this passage. Some writers consider that St. Paul is merely supposing a case, and does not intend to suggest that this is a possible or actually used method of grafting ; this supposed case illustrates his argument, and he moulds his language accordingly. Other writers consider that St. Paul was wholly ignorant of the nature of the case ; that he had heard vaguely of the process of grafting, and fancied that a wild shoot was grafted on a good tree ; and they rightly add that such ignorance would prove him to have been wholly uninterested in the outer world.

The first view—that St. Paul merely takes this impossible and unused method of grafting as an illustration of his argument, without implying that it was actually employed in Olive-culture—has been widely held by British scholars. It is stated very strongly and precisely in what may fairly

be styled the standard Commentary on Romans, by Professors Sanday and Headlam, and we shall have their work chiefly in mind in this connexion.¹

This view seems unsatisfactory. St. Paul is attempting to describe a certain remarkable spiritual process, to make it clear to his readers, to enable them to understand how it was possible and how it was brought about. The spiritual process was in itself, at first sight, improbable and difficult to reconcile with the nature of God, who in it cuts off some of the people that He had Himself chosen and puts in their place strangers of a race which He had not chosen and which therefore was inferior. This seemingly unnatural process is, according to the view in question, commended to the intelligence of the readers by comparing it with a non-existent process in Olive-culture—"one which would be valueless and is never performed," to use the clear and pointed words of the two above-named authors. They say that "the whole strength of St. Paul's argument depends on the process being an unnatural one; it is beside the point, therefore, to quote passages from classical writers, which even if they seem to support St. Paul's language describe a process which can never be actually used. They could only show the ignorance of others, they would not justify him."

It is, however, hard to see how a spiritual process, confessedly contrary to nature and improbable, is made more intelligible by comparing it with a process in external nature, which is never employed, because it would be useless and even mischievous if it were employed. Other writers have tried to make spiritual processes credible by showing that similar processes occur in external nature. St. Paul, according to this view, proves that the spiritual

¹ I hope that I shall not misrepresent their view. Owing to certain wide-spread misapprehensions about Olive-culture (described in the sequel), I have found some difficulty in catching their real meaning, in spite of the apparent clearness and sharpness of their language.

process is credible, because it resembles a process impossible in and contrary to external nature.

We cannot accept such a view—in spite of our respect and admiration for the distinguished scholars who have advocated it. Nor can we admit that they are justified in setting aside the statement of a writer like Columella with the offhand dictum that it “shows his ignorance.” Columella, in a formal treatise on horticulture, v. 9, describes very fully the process, stage by stage. He describes it as unusual and exceptional; and he describes in another chapter, v. 11, the usual and regular process of grafting. The fact is that it is the modern commentators who have misunderstood and misjudged. Columella, Palladius, and St. Paul agree and are right: and modern science has justified them, as we shall see.

Rejecting this first view, and concluding that St. Paul was here quoting what he believed to be an actual process used in external nature in order to make intelligible a spiritual process, we may for a moment glance at the other view, that his belief was wholly wrong. Thus, for example, Mr. Baring Gould, in his *Study of St. Paul*, p. 275, finds in this passage of Romans the occasion for one of his contemptuous outbursts against the narrowness, dulness and ignorance of the Apostle. “Inspiration,” he says, “did not prevent him from bungling in the matter of grafting of an Olive-tree, and from producing a bad argument through want of observing a very simple process in arboriculture.”

It would certainly be a very strong proof of blindness to the character of external nature, if St. Paul had been mistaken in thinking that this process was used; and it would fully justify some very strong inference as to his character and habit of mind. This point is one that deserves some notice. Olive-culture may seem to the northern mind a remote and unfamiliar subject, about which a philosopher might remain ignorant. Even in the Mediterranean lands

it is now very far from being as important as it was in ancient times. It was practically impossible for a thinker, at that time, if brought up in the Greek or Syrian world, to be ignorant of the salient facts about the nature of the Olive, and yet to be abreast of the thought and knowledge of his time. So important was the Olive to the ancient world, so impressive and noteworthy were its nature and culture, so much of life and thought and education was associated with it, that a gross mistake about the subject would imply such a degree of intellectual blindness as is quite inconsistent with the conception of St. Paul which the present writer believes to be right.

About three years after grafting the young tree begins to bear fruit; but eight or nine years are required before it produces plentifully. Thus Olive-trees require from fifteen to nineteen years before they begin to repay the work and expense that have been lavished on them. Such a slow return will not begin to tempt men except in an age of peace and complete security for property. The cultivation, when once established, may last through a state of war and uncertainty—if not too protracted or too barbarous in character—but it could not be introduced except in an age of peace and security. The Olive was the latest and highest gift of the mother goddess to her people.

The Olive has therefore always been symbolical of an orderly, peaceful, settled social system. The suppliants who begged for peace, or sought to be purified from guilt and restored to participation in society, according to Greek custom (probably derived immediately from Asia Minor)¹ carried in their hands an Olive-bough. On the other hand, a district which was dependent for its prosperity on Olive-cultivation suffered far more than others from the ravages of war, when the war, as was not uncommon in a barbarous

¹ See an article on the *Religion of Asia Minor* in *Hastings' Dictionary of the Bible*, v. p. 127.

age, was carried to the savage extreme of destroying the fields and property of the raided or conquered country. At the best the ruin was practically complete until the new Olive-trees which were planted had time to grow to the fully productive stage about seventeen years later. But, if security was not felt, if people were afraid to risk their labour and money in outlay which might be seized by others long before it could begin to be remunerative, the ruin was permanent, and the country sank to a lower economic and social stage ; it was impoverished, and could only support a much more scanty population. As an example of the effect of the Olive-cultivation on the density of population Professor Fischer¹ mentions that in the arrondissement Grasse in the south of France, one-third of the land, in which Olives were produced, contained in 1880 a population of 60,000, while the other two-thirds, where no Olives grew, supported only 10,000 people. The importance of this production becomes more evident when one remembers that the Olive grows most richly on hill-slopes, where the soil is thin and scanty, and otherwise of little value ; while the rich soil of well-watered plains produces fruit large in size, but poor in oil. Abundant air, light and sunshine are necessary, and these can be best obtained on sloping ground, while artificial enriching of the soil supplies all the needed nourishment to the tree.

Several passages in the Bible refer to the uncertainty of possession in Olive-trees that results from war. The Israelites were promised the ownership of Olive-trees in Palestine which they had not planted (Joshua xxiv. 13 Deuteronomy vi. 11). Such is the invariable anticipation of the tribes from the desert, which from time immemorial have been pressing in towards the rich lands of Syria, eager to seize and enjoy the fruits of the cultivated ground which others have prepared. The anticipation can be best

¹ In his treatise *der Oelbaum*, p. 2.

realized if the conquest is quick and sudden. In case of a long resistance and a tedious evenly balanced contest, the land is injured more and the fruit-trees are cut down ; the inhabitants of a besieged city may cut down the fruit-trees to prevent the enemy from sheltering behind them in their attack, or the besiegers may cut them to make engines and other means of attack (as the Crusaders did at Jerusalem in 1099). Invaders who are repulsed, or who are not strong enough to hope for permanent possession of the land, were the worst of all in ancient warfare. They commonly burnt, ravaged, and destroyed from mere wanton desire to do as much harm as possible to the country and the enemy who possessed it.

As the cultivation of the Olive requires so much prudence, foresight and self-denial in the present for the sake of gain in the distant future, it belongs to a higher order of civilization, and in modern times it has almost entirely ceased in many Mohammedan countries, and where it persists in them it is practised, so far at least as the present writer's experience extends, almost solely by Christians. In part this is due to the savage nature of the Mohammedan wars ; but that is not the whole reason. The Olives were not wholly cut down at the conquest, for it was too rapid and easy, but they suffered terribly in the Crusaders' wars ; though even so close to Jerusalem as the Garden of Gethsemane there are still some trees which, according to common belief, pay only the tax levied on Olives that existed before the conquest, and not the higher tax levied on those which were planted after the conquest.

But Mohammedanism is not favourable to the quality of far-sighted prudence needed in Olive-culture : the Mohammedan tends to the opinion that man ought not to look fifteen or nineteen years ahead, but should live in the present year and leave the future to God. Where this quality of prudence fails, Olive-culture must degenerate, since the preparation for a distant future, which is needed

at every stage, becomes neglected more and more as time passes. Thus, even in Corfu, it is said, the culture has much degenerated, owing to the people becoming idle, careless and improvident. At Athens the Olives of the famous groves are now over-supplied with water, and the fruit has become large and oil-less : whereas in ancient times that grove produced finer and more abundant oil than any other trees.

In short, the Olive is a tree that is associated with a high order of thought and a high standard of conduct. It demands these ; it fosters them ; and it degenerates or ceases where the population loses them. In the beginning the collective experience and wisdom of a people living for generations in a state of comparative peace¹ formulated the rules of cultivation, and impressed them as a religious duty on succeeding generations.

So important for the welfare of ancient states was the proper cultivation of the Olive, that the rules were prescribed and enforced as a religious duty ; and, as gradually in Greece written law was introduced in many departments, where previously the unwritten but even more binding religious prescription had alone existed to regulate human action, so in respect of the Olive law began in the time of Solon to publish and enforce some of the rules to be observed. The Olive-tree requires a certain open space around it to admit freely the air and light which are indispensable for its growth, and in Solon's time the principle was that there must be a space of at least eighteen feet between two trees.² The wood of the Olive was extremely valuable, and there was a danger that short-sighted selfishness might cut down trees for immediate profit regardless of the loss in

¹ Hastings' *Dictionary*, v. p. 133.

² Plutarch, *Solon*, 23. The distance is inferred from the form of the order ; a man must not plant a fig or Olive within nine feet of his neighbour's boundary. Professor Fischer, p. 30, has incorrectly apprehended the rule ; he says that Solon ordained that Olives must be 9 ft. distant from one another, which would be far too close.

the future ; therefore an old law in Attica forbade any owner to cut down more than two Olive-trees in a year.

Dr. Post and others have well described the usefulness of the Olive in modern life in Mediterranean lands. Study of the inscriptions and authors shows that its usefulness to the ancients was far more highly esteemed, just as it was far more abundantly and widely cultivated. It was regarded as being more than useful ; it was necessary for the life of man, as life was understood by the ancients.

Such was the lofty conception which the ancients, especially the Greeks, entertained of the sacred character of the Olive ; and a modern writer might be justified, if he tried to describe in more eloquent terms than mine the importance of the tree. St. Paul might well go to the Olive-tree for explanation and corroboration of his argument ; but the effect of his illustration would depend with his ancient readers entirely on the correctness of his facts. They respected and venerated the tree : to make an absurd suggestion or display an erroneous belief about the culture of the tree would only offend the ancient mind. We, who have to go to books in order to find out the elementary facts about the Olive, and who regard the whole subject as a matter of curiosity, will naturally be lenient on a writer who errs where we feel that we should ourselves be prone to make errors ; but the ancients did not judge like us in this case. This is one of the many cases where ancient feeling and modern are widely separated ; and St. Paul must be judged by the requirements of his time. I almost cease to wonder that Mr. Baring-Gould became so severe a critic of St. Paul's character and intellect, after he had persuaded himself that the great Apostle had made such a blunder in such a matter, for Mr. Baring Gould is a man who has observed and judged frankly for himself.

If the process of grafting with the Wild-Olive shoot was a known one in ancient Olive-culture, the question may be asked how it happens that Origen was ignorant of it, since

he asserts positively that St. Paul in this passage is putting a case which never actually occurs.¹

In the first place, it is evident from the nature of the case that this kind of grafting was not very frequent: only in exceptional cases was a tree in such circumstances as to need this surgical treatment. It might therefore quite well happen that Origen might know about the ordinary process, of grafting and yet be ignorant of the extraordinary process so that he declares as emphatically as most modern writers except Professor Fischer, that there was no grafting with Wild-Olive but only with the cultivated Olive.

In the second place, Origen lived in Egypt, and this explains his ignorance. The Wild-Olive was and is unknown in Egypt.² It does not grow in the country naturally; and, of course, only the cultivated Olive would be introduced artificially. Origen, therefore, could never have seen the process in Egypt, where Olive-culture must have made shift without this surgical treatment. Similarly, the modern scholars, who assert so positively that there is only one kind of grafting, are all ignorant of the practical facts, because they belong to lands where Olive-culture is not practised, and they speak all from theory, or as the result of questions which they have put to Olive-growers during their travels. Now, it is very easy for misunderstanding to arise on this subject: the practical growers even in Palestine assured Mr. W. M. Thomson³ frequently that all grafting was done with cultivated shoots, because they were speaking of the regular grafting: the extraordinary process for surgical reasons was not in their mind at the time. Moreover, those men are always extremely unwilling to reveal the secret and exceptional processes of their occupation. An example of this unwillingness, connected with the breeding of the mohair goat, is described in the present writer's *Impressions of Turkey*, p. 272.

¹ The passage is quoted in the edition of Professors Sanday and Headlam

² Fischer, p. 10.

³ *The Land and the Book*, p. 58.

In the third place Origen evidently was entirely ignorant of Olive-culture as it was conducted in Egypt, and knew it only from literature, not from observation. He says that the cultivators grafted the cultivated Olive on the Wild, and not *vice versa*. But, as we have seen, the Wild-Olive is unknown in Egypt; and the Olive there, both root and graft, was the cultivated Olive.

Finally, as the most important reason of all, St. Paul introduced the illustration from the spontaneous fountain of his own knowledge; he selected a good illustration where he founded it. But Origen is here the commentator toiling after his author and forced to go where the author leads him, whether or not his own experience and knowledge are competent. In such circumstances the author's knowledge and statement must be reckoned higher than the commentator's, even if they were both equally unconfirmed from external sources.

It may also be added here that, not merely is the cultivation of the Olive now carried out on a very much smaller scale than in ancient times, having entirely perished in many districts and entire countries where formerly it was practised on a vast scale; it is also, in all probability, done now in many districts (though certainly not in all) after a less scientific fashion and with less knowledge of the possible treatment of weak and exceptional cases than in ancient times.

The method of invigorating a decadent Olive-tree, described above as practised in Palestine, is, I believe, not employed now in Asia Minor. But this forms no proof that the method was unknown there in ancient times. The culture has entirely ceased in many districts, and where it remains the methods are, as I believe, degenerated in several respects (as in many other departments of the treatment of nature for the use of man) from the ancient standard.

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