HANNIBAL'S MARCH

SPENGER WILKINSON

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THROUGH THE ALPS

BY

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WITH TWO FIGURES AND FOUR MAPS

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I

THE PROBLEM AND THE CLUE TO ITS SOLUTION

From the age of Augustus until the present day historians have been unable to agree with one another concerning the route which was followed by Hannibal in the year 218 B.C., in his march from the Pyrenees through Southern France and the Alps to the plain of the Po. The purpose of this essay is to show that, chiefly in consequence of the researches of a group of French officers, that route can now be traced as regards its main points with reasonable certainty, and as regards the incidents of the march, with a fair degree of probability. The sources of our information are the third book of the History of Polybius and the twenty-first book of that of Livy. Polybius was born at Megalopolis in Arcadia between 208 and 198 B.C.¹ In 166 or 167 B.C. he was taken as a hostage to Rome, where he remained continuously for seventeen years. He was then at liberty to return to Greece and to travel, but it was in Roman rather than in Greek society that he was thenceforth at home. He had not been long at Rome

¹ 208, Mommsen, R. G., ii. 448; 198, Polybius und Sein Werk, von O. Cuntz, p. 77.
before he acquired the friendship of the Scipio who afterwards became famous as the conqueror of Carthage in the third Punic War. Polybius had received the education of a statesman and a soldier, and his intimacy with Scipio led to his accompanying that general in the campaigns against Carthage and against Numantia, in which it is believed that he rendered some service as an engineer. He wrote his history for the purpose of explaining to his Greek countrymen how Rome had come to be the mistress of the world. In pursuit of the information which he required he travelled widely, and in particular made the journey across the Alps in order to follow and to see for himself the route that had been taken by Hannibal. He says that he had had the opportunity of inquiring about the events of the march from men who had taken part in it. His residence in Rome began half a century after the march, and he was then between thirty-one and forty-one years old. He may very well have had the opportunity of discussing the events of 218 with Carthaginians who had accompanied Hannibal, with Greek officers who had been on his staff, and with Romans who had taken part in the operations against him. As he wrote he had before him the accounts of earlier authors, some of whom were Roman, and one probably a Greek. In point of time he stood to the events of 218 as a man who was born in 1871 would stand to the Crimean War.

Livy wrote a century and a quarter after Polybius.
He was a literary historian who sat in his study and compiled. He lacked the contact with men and with affairs, and the habits of travel and observation, which specially qualified Polybius to be a military historian. His practice was to translate or paraphrase the works of his predecessors, relying for each period mainly upon some writer whom he regarded as for that period the principal source, and to interpolate and incorporate into his story such passages from other writers as seemed to him to supplement the narrative or to be of special interest. The interpolated passages are not always consistent with the main text, and are thought sometimes to have been inserted at points where they do not properly belong. One of the chief difficulties which besets the interpreter of Livy is this habit of compiling what purports to be a continuous story out of passages which have not always been judiciously fitted together. In his account of Hannibal's march, Livy's main story so closely corresponds with that of Polybius that it might be taken for a free translation from the text of the Greek historian. But here and there occurs a passage not to be found in Polybius, and one of these passages is hardly capable, as it stands, of reconciliation either with that author or with the general trend of Livy's own narrative.

The attempt will here be made to show that the text of Polybius indicates a specific route, and that the acceptance of this route leads to a simple and
probable explanation of the apparent discrepancies between the text of Polybius and that of Livy. The right way to begin is to take those points as to which the two historians upon whom we have to rely are in absolute accord, and if in regard to certain main points of the route we can thus reach reasonable certainty, we shall gain an outline which it may be possible to some extent to fill in.

Polybius (xxxiv. 10), describing the Alps, says that the pass used by Hannibal led to the territory of the Taurini, and the text of his story leaves no doubt that Hannibal's descent from the pass brought him directly into the territory of that tribe. Livy says that the Taurini were the first tribe that Hannibal met when he came down into Italy. The district of the Taurini is represented by the modern city of Turin. We may therefore take the neighbourhood of Turin as a point fixed by the agreement of Livy and Polybius, and may work back from that fixed point. The plain of the Po in the neighbourhood of Turin was reached in three days' march from the great pass over the Alps, of which a very striking description is given. We are told that the army, consisting at this time of not less than 26,000 men, was halted for two days at the summit of the pass, and Polybius

\[\text{\footnotesize 1 In iii. 56, Polybius says, 'he came down boldly to the plain of the Po and the tribe of the Insubres.' This is one of the preliminary summaries of which Polybius is fond. Chap. Ix, however, shows that the first tribe he reached were the Taurini. The Insubres lay to the east of the Ticino about Milan.}\]
CLUE TO ITS SOLUTION

says that as the men were greatly disheartened 'Hannibal assembled them and tried to cheer them up. The one thing that he had to rely on for this purpose was the clear view of Italy, for Italy lay at the foot of the mountains in such fashion that when both were seen in one view the Alps appeared to constitute an Acropolis of all Italy. Therefore showing his men the plains of the Po, reminding them of the goodwill of the Gauls who inhabited those plains, and also indicating the position of Rome herself, he put them for the time into good spirits.'

Livy says that when a start was made from the pass at dawn 'Hannibal called a halt on a promontory from which the view extended far and wide, and showed his soldiers Italy and the plains of the Po lying at the foot of the Alps. He told them that they were then crossing the battlements not only of Italy but of the city of Rome.' Thus Polybius and Livy are in accord in representing Hannibal as crossing the Alps by a pass from which the plain of the Po near Turin could be seen by a large number of men at the same time, and from which the view conveyed the impression that the Alps were the Acropolis of Italy. Until 1884 the historians were agreed in rejecting these passages as mythical. From none of the passes which they discussed is it possible to see the plain of Italy, though the advocates of the Mont Cenis route suggest that a glimpse of the plain can be seen by the tourist who undertakes a laborious ascent.
up the side of one of the mountains which border the pass. In 1884 Colonel Perrin published his account of the Col du Clapier, from which in clear weather are visible the plain of Turin, the whole range of the hills of Montferrat behind Turin, and a great sweep of the plain to north and south of that range. It is just such a view as would suggest the words quoted from Polybius, and the impression that the Alps form the Acropolis of Italy is precisely the description which a Greek would be likely to give either of the view from the Clapier looking towards Turin, or of the view from Turin looking towards the Clapier. Both of these views Polybius must have seen, and that is probably why he used the expression 'when the Alps and Italy are seen in one view'. A rough idea of the view from the Clapier is conveyed by Fig. 1, and a rough idea of the view looking from Turin towards the Clapier by Fig. 2.

1 My own observation and that of my companions has failed to find a point on or near the Mont Cenis route from which the plain of Italy can be seen.

2 It is not practicable to take a photograph from the Clapier which will include both the Alps and the plain. I have made three visits to the pass, and on each occasion one at least of the party has carried a hand camera. A telephotographic lens is not permitted on the pass. In August, 1909, we had a magnificent view, but the plates taken record only a fraction of it. They dimly show the Monte Musine on the left side of the valley of the Dora Riparia, where that river enters the plain, and the sanctuary of San Michele on the opposite side of the valley. But as regards all beyond those points the plates are a blank. Monte Musine is twenty-six miles from where the camera stood, and this seems to be the limit of its power. The Superga which was visible above
The Col du Clapier is an almost level depression between two peaks, its floor being about half a mile wide and two or three miles long. At the Italian end this floor forms a promontory which would hold several thousand men, all of whom would at the same time see the view. There is no other pass between the Lake of Geneva and the sea from which it would be possible for an army or any considerable portion of an army to see the plain of Italy. There is said to be a fine view of Italy from the Col de Malaure near Abries, but no one has ever suggested that Hannibal used that pass, of which the peculiar structure is inconsistent with the story, because the view is to be seen only from a narrow ridge on which no body of troops could be stationed. The nature of the view from the Col du Clapier is the crucial evidence that this was Hannibal’s pass, and what is even more important, that neither Polybius nor Livy draws upon his imagination for his statements.

Assuming the Clapier to be the pass, we have to find the route by which Hannibal reached it. The natural route would be by the river valleys. Tracing it backwards, it would follow the course of the Monte Musine was forty-one miles from the camera, and there was no trace of it on the plate. Accordingly Fig. 1 has been prepared by tracing from an enlarged photograph the outlines of the hills up to and including Monte Musine, and filling in from sketches taken on the spot the position of the hills of Montferrat in the view.

Fig. 2 is a reproduction from a portion of a rough lithographed panorama of the Alps seen from the Capucin Monastery at Turin.
the Arc, then of the Isère, and then of the Rhone. This route accords with the distances given by Polybius, who divides the journey into stages for each of which he gives the distance in hundreds of stadia, a hundred stadia being eleven miles. The stages which concern us are three: first, from Emporion (Ampurias) on the Spanish side of the Pyrenees to the crossing of the Rhone, about 1,600 stadia; secondly, from the crossing of the Rhone along the river itself until the ascent of the Alps leading towards Italy, 1,400 stadia; and thirdly, the passage through the Alps, about 1,200 stadia. Polybius refers to 'the ascent to the Alps' as a specific point, the place where the first battle took place, and his choice of this point as the end of one stage and the beginning of another shows that he has in view some particular place where the transition from the region of plain to the region of mountains is unmistakable. If we measure back from Avigliana, where the plain of Turin begins, taking as our route the Col du Clapier, the valley of the Arc, and the valley of the Isère, 1,200 stadia or 132 miles will bring us within five miles of the Bec d'Echaillon, where the Isère emerges from the Alpine region and enters the plain of the Rhone valley. If from the Bec d'Echaillon we measure down by the bank of the Isère and of the Rhone a distance of 1,400 stadia, 154 miles, we shall reach a point two miles north of Fourques, the town which marks the head of the delta of the Rhone. The distance from Fourques
to Ampurias measured along the shortest possible route is 179 miles, or three miles more than the 1,600 stadia, 176 miles, given by Polybius for the march from Ampurias to the crossing of the Rhone.1 Assuming the itinerary thus produced to be that indicated by Polybius, we may now examine it in detail with the text of Polybius and of Livy before us.

1 The text of Polybius is met by distances not exceeding or falling short of his measurements by 100 stadia or eleven miles. A greater discrepancy than eleven miles would be discordant with his measurements.
II

THE PASSAGE OF THE RHONE

According to Polybius, Hannibal moved quickly from the Pyrenees towards the Rhone, keeping the Sardinian Sea on his right, and when he reached the river 'immediately took in hand its passage by the single stream, his army being distant about four days' march from the sea'. He at once bought up from the natives all their boats and canoes, and gathered timber for the construction of further canoes, so that in two days he had enough craft for his purpose. A great number of boats were available, because the people who lived on the banks of the Rhone were accustomed to maritime trade. Meantime a Gallic army collected on the opposite banks to oppose the passage. Accordingly, when the third evening came, Hannibal sent a detachment under Hanno to cross the stream higher up, in order to surprise the enemy by a flank attack. Hanno's party marched 200 stadia, 22 miles, up the river, and there finding an island, crossed the river in rafts and canoes and spent the fifth night on the left bank, starting at dawn next day to march down that bank against the enemy. As soon as Hannibal received Hanno's signal that he was at hand, he ordered the crossing of the main force to begin.
The natives were defeated, and during that day the whole of the infantry and cavalry crossed the river and were encamped for the sixth night on its left or eastern bank. Next day Hannibal heard that a Roman fleet was anchored off the mouths of the Rhone. He therefore sent off 500 Numidian horse to reconnoitre the Romans, and then arranged for the transport of his thirty-seven elephants across the river. Meantime, in the camp Hannibal assembled the army, which was addressed first by certain Gallic chiefs from the valley of the Po and then by Hannibal himself. No sooner were the speeches over and the troops dismissed than the Numidian cavalry returned. They had been defeated by a party of Roman and Celtic cavalry that had been sent to reconnoitre by the Roman commander Scipio, who had disembarked his army to the east of the eastern mouth of the Rhone, that is near the modern Fos. The engagement had taken place not far from the Carthaginian camp, which the Roman cavalry, being successful, reconnoitred, and then hurried back to report. Scipio at once re-embarked the baggage of his army and set off with his troops beside the river, being eager to engage the Carthaginians. These events appear to have all taken place on the day following the sixth night, that is, the seventh day after Hannibal's reaching the river. Next day (the eighth) in the morning Hannibal sent the whole of his cavalry towards the sea to act as a rear-guard, and set his infantry
in march towards the north. He then completed the transport of the elephants. A number of large rafts were made and fastened one to another until a landing-stage had been formed which projected 200 feet from the bank towards mid-stream. To the extremity of this platform was tied a large double raft,¹ on to which the elephants were brought. This was then cut loose from the landing-stage and towed by boats across the river. Some of the elephants were frightened and fell off the raft, but even these got safely across, some of them having to swim a short distance, but most of them finding that they were not out of their depth. As soon as the elephants were across, still on the eighth day, Hannibal recalled the cavalry and set off, with the cavalry and the elephants as a rear-guard, to follow the infantry towards the north.

Scipio reached the point where the river had been crossed on the third day from the departure of the Carthaginians.

Almost all the early writers have supposed that Hannibal crossed the Rhone at a point much higher up the stream than that just below which it bifurcates to form the delta. Napoleon, considering the abstract probabilities, thought that Hannibal would wish to cross the river above its confluence with the Durance and below its con-

¹ It may be inferred from chap. xlv, par. 1, that the double raft was at least 50 feet broad. Livy makes the landing-stage project 200 feet, and the raft 100 feet broad.
fluence with the Ardèche, and accordingly the favourite sites are at Roquemaure and Pont St. Esprit. Captain Colin, by suggesting that the point of passage was at the head of the delta just above Fourques, has contributed almost as much to the elucidation of the story told by Polybius as Colonel Perrin by indicating the Col du Clapier as Hannibal's pass. The measurements of distance given by Polybius point to a crossing at the lowest possible point above the delta. This seems to be the natural meaning of the words of Polybius, that Hannibal, when he reached the river, 'immediately took in hand its passage by the single stream.'

The details of the story suggest a point as near the sea as possible. The statement of Polybius that boats were numerous because the natives were addicted to maritime trade is hardly consistent with any place north of Tarascon. The landing-stage and the raft tied together projected, according to Polybius, 250, and according to Livy, 300 feet into the stream. This space of 300 feet could only be a fraction of the breadth of the river, for otherwise Hannibal would have prolonged his landing-stage until it formed a bridge. The necessary breadth will not be found above the confluence with the Durance. The use of the landing-stage and of the raft, as well as the fact that the horses swam the river, point to its more

1 xlii. Α'Αννίβας δε προσμιέας τοῖς περὶ τῶν ποταμῶν τόπων εὐθέως ἐνεχείρει ποιεῖσθαι τὴν διάβασιν κατὰ τὴν ἀπλὴν ῥύσιν, σχεδὸν ἡμερῶν τετάραων ὀδὸν ἀπέχων στρατοπέδῳ τῆς θαλάττης.
sluggish course in the region below Tarascon, and are inconsistent with the swifter stream near Roquemaure or Pont St. Esprit.

Some writers have been puzzled by the statement of Polybius that Hannibal’s camp at the point of passage was about four days’ march from the sea, Fos being little more than thirty miles distant from the Rhone above Fourques. They suppose that four days’ march ought to be considerably more than thirty miles. But a day’s march is not a fixed distance. Polybius says ‘about four days’ march’, because, according to his account, Scipio reached the Carthaginian camp on the fourth day from his leaving the shore. Scipio started in the afternoon or evening of the seventh day. Hannibal marched off with the elephants on the eighth day. On the tenth day Scipio arrived at the camp, to find that the Carthaginians were gone. The Roman general was marching to meet the most dangerous enemy in the world. Livy distinctly states that he marched in order of battle, a procedure which is inconsistent with rapidity of movement. Hannibal’s average rate of march up the valley of the Rhone was rather less than nine miles a day. Scipio, marching with his army drawn out for battle and carefully fortifying his camp each night, would be very unlikely to move faster than this. But on the first day, setting off in the late afternoon, for he could not start until the cavalry had reported and his baggage had been shipped, he would hardly do
more than four or five miles, and there is no reason to suppose that on the fourth day, when he reached the site of the Carthaginian camp, he had made a full day's march. Accordingly the distance from Fos to a point on the river a mile or two north of Fourques perfectly accords with the text of Polybius, with which, in all that concerns the passage of the Rhone, that of Livy precisely concurs.
After crossing the Rhone, Hannibal marched up that river away from the sea 'towards the centre of Europe'. On the fourth day's march from the point of passage he reached a district called the Island, populous and rich in corn, resembling in size and shape the delta of Egypt, being a triangle of which two sides were formed by the Rhone and its tributary, the Skaras, and the third side, not as in Egypt by the sea, but by mountains hard to approach and hard to enter, and therefore impassable. In the Island two brothers were rivals for the chieftainship. The elder brother appealed to Hannibal, with whose support he established his supremacy and expelled his rival. The successful chief showed his gratitude by supplying Hannibal's army with provisions, new weapons, clothing, and shoes. Moreover, as Hannibal was anxious about a possible encounter with the tribe of the Allobroges, the friendly chief accompanied him with his own army on his further march, until the ascent of the Alps was approached. This took place after ten days' march by the river from the Island, during which a distance of 800 stadia, eighty-eight miles, was covered. Then began the ascent towards the Alps, and the difficulties presented by the country itself.
The identification of the Island described by Polybius has embarrassed those historians who place the crossing of the Rhone north of its confluence with the Durance. If the crossing was near Fourques the problem of the island is simplified. Starting from Fourques, Hannibal during the second day would reach the Durance. This river would be forded by the army, not without difficulty, and the operation would certainly not be completed before the evening of that day, if so soon. It might very well have been a whole day's work. The third day's march would take him from the Durance to the Sorgues near its confluence with the Rhone, and on the fourth day he would be in the region between the Sorgues and the Rhone. This region offers the site for the Island which best accords with the text of Polybius. The Rhone with almost any of its tributaries will make the necessary two sides of a triangle, and the mountains can in most cases be construed as forming the third side. Livy describes the Island in much the same terms as Polybius, but names the tributary river Ibisarar or Ibisaras, Bisarar or Bisaras, Sarar or Saras, according to the reading. None of the possible regions are as large as the delta of Egypt, but several of them have the triangular shape required. The most probable tributary is the Sorgues, on which there is a town which still bears the name of the Island (Isle-sur-Sorgues).

Polybius makes no mention whatever of the
Durance. Livy repeats exactly the story of Polybius until he has concluded the account of the assistance given to Hannibal by the chief in the Island, though after saying that the Allobroges lived 'near' the Island, he writes as though the rival chiefs were themselves Allobroges. But Livy goes on to say that after settling the dispute, as he went on towards the Alps, Hannibal did not go the straight road, but turned to the left to the Tricastini, that thence he moved round the edge of the territory of the Vocontii into that of the Tricorii, his march being quite unhindered until he reached the river Durance, which his army forded with considerable difficulty. From the Durance, Livy says a little later, Hannibal marched as far as the Alps through level country, without molestation from the natives.

This portion of Livy's story has been thought irreconcilable with the narrative of Polybius, and has led a number of writers, who suppose Hannibal to have crossed the Rhone above its confluence with the Durance, to take Hannibal by difficult, circuitous, and impracticable routes to the Upper Durance. But the text of Livy is perfectly explicable and intelligible if we assume that he has compiled it from different accounts, and has made a slight slip in putting them together. He first follows an authority who must be either Polybius or the original of Polybius, until he is done with the Island and the two brothers; this version begins by saying that Hannibal marched...
up the left bank of the Rhone, not because it was the more direct way to the Alps but because he wished to avoid Scipio's army. But when Livy has finished with the Island he begins again, and again says that Hannibal going on towards the Alps did not follow the direct way, but turned to his left. This new beginning is a repetition, and probably represents a second version of Hannibal's decision at the moment when he had crossed the Rhone. At that moment, when Hannibal was on the left bank of the Rhone south of Tarascon, the direct route to the Alps would have been up the valley of the Durance, but instead of that Hannibal went to his left up the Rhone through the Tricastini (either near St.-Paul-Trois-Chateaux or a few marches further north), round the Vocontii (Vercors) to the Tricorii (between Grenoble and Vizille). This is exactly the route that has been suggested as accordant with the text of Polybius. Setting out in this direction from his crossing of the Rhone, Hannibal first came to the Durance, which he forded near its mouth, and Livy gives a vivid description of the fording. Livy's third passage, saying that the march to the Alps was made through level country without molestation from any of the inhabitants, is a condensation of what Polybius has to say about the same march,¹ which we shall examine in the next chapter.

¹ I have little doubt that Livy had three separate texts before him. From the first of these he copied chap. xxxi, pars. 1–8, from the second he copied chap. xxxi, pars. 9–12, and wrote himself,
The objection that Livy was incapable of confusing the story so as to bring in at the wrong places the passages which he took from a second and third source, can hardly be sustained by those who infer from Livy’s narrative that Hannibal crossed the Durance in its upper course, for they impute to Livy a very much greater derangement of the proper order of his narrative.

to join the two extracts, the words: sedatis Hannibal certaminibus Allobrogum cum iam Alpes peteret. From the third he copied chap. xxxii, par. 6.
IV

THE FIRST BATTLE

There were two ways in which, in the mountains, the native tribes could oppose Hannibal. They might choose a strong position athwart his line of march, thus challenging him to a pitched battle. In such a case he would have no reason for attacking them if he could move round the position, and the position would be of no use to them if he could possibly turn it. But if he must attack, it was probable that with his highly trained and disciplined army he would make short work of any Gallic tribes attempting to hold a position against him. The Gauls blocking his advance would be as easily brushed away by Hannibal as were the Afghans blocking the advance of Sir Frederick Roberts on the Peiwar Kotal.

But another plan was open to the Gauls. When the Afghans destroyed an Anglo-Indian army in 1842 they assailed it where it was stretched out in a long column in the gorges of the Kurd Kabul pass. It is in the defiles that an army on the march can most effectively be assailed.

Hannibal started from the Rhone with 38,000 infantry; that means a column seven miles long when in perfect order on a good road, and ten miles long when slightly disordered by its movement.
In single file on a mountain path this mass of 38,000 men would fill twenty-one miles of the path. Hannibal had 8,000 horse, and must have had a couple of thousand mules to carry a week's provisions for his army. These 10,000 horses and mules marching two and two would make a column eleven miles long; and in single file the column would trail out to a length of not less than twenty-two miles. These figures show the dangers to which an army is exposed if it is liable to attack when engaged in a defile.

According to Polybius, after ten days' march from the Island along the Rhone, during which Hannibal was escorted by the chief from the Island, he began to approach the hilly country, and almost immediately learned that the Allobroges were occupying a position which he must needs pass; in other words, they were holding against him a line of heights which he could not turn.

Suppose the Island to be the district between Rhone and Sorgues. If we measure from Bédarrides, a point in that district, a distance of eighty-eight miles along the valley of the Rhone and up the left bank of the Isère, we shall reach St. Nazaire, where the hills of the Vercors approach the Isère, and where the difficulties of a further march up the Isère would begin. From St. Nazaire the road follows the narrow strip of flat ground which lies between the mountains of Vercors and the swift and deep Isère. At a distance of twenty-five miles from St. Nazaire the Isère emerges from
THE FIRST BATTLE

25

the wide gorge between the mountains of Vercors and those of the Grande Chartreuse. Coming out of the gorge, the river skirts the foot of the Bec d’Echaillon, a precipitous cliff surmounted by the plateau of St. Ours, about 1,700 feet high. This is surmounted by a second precipice of which the summit, 3,000 feet high, is again a plateau sloping gently to the south for about a mile and a half, and then rising rapidly to the ridge of the Vercors, which is here about 4,800 feet high. The lowest point of this second plateau is about 2,300 feet above the sea and 1,700 feet above the Isère. Until the last century there was no practicable road round the Bec d’Echaillon. The road went over the Col of the second plateau from St. Quentin on the west to Veurey on the east, or to Noyarey, a mile and a half nearer to Grenoble. The old course of the Isère skirts the foot of the cliffs between Noyarey and Veurey, so that it is probable that in ancient times the only practicable road was from St. Quentin to Noyarey. At the present day, besides the modern high road which follows the left bank of the Isère and skirts the foot of the Bec d’Echaillon, there is a good cart-road which ascends in long zigzags the steep hill from St. Quentin to Montaud, a village on the plateau, and then descends a ravine to Veurey. A mule-track and several footpaths lead from the plateau near Montaud over one of the spurs running down from the Vercors, and descends a second gorge to Noyarey. The gorge ending at Noyarey is
very difficult; rugged and precipitous paths lead down on either side of it, and either path is of course commanded from the high ground. In this region Captain Colin finds the site of Hannibal's battle with the Allobroges. The position they held was the plateau of Montaud; the defile which followed was one of the gorges leading from Montaud to Veurey or Noyarey. No other site which has been suggested for this battle so well accords with the account given by Polybius. Hannibal learned after the friendly chief had left him that the enemy was holding a position which he could not evade. He then sent forward Gallic scouts to reconnoitre the enemy's arrangements and intentions, and on receipt of the information marched his army ostentatiously to the foot of the position and there encamped. From St. Nazaire to St. Quentin is twenty-one miles, two marches for Hannibal's army. After passing St. Nazaire he would hear that the Gauls were occupying the plateau of Montaud which he must cross, for he could neither take his army over the mountains of Vercors, 4,500 feet high, nor go round or across the Bec d'Echaillon. He therefore pitched his camp probably near St. Quentin. Being informed that the Allobroges dispersed to their homes at night, he took a body of light armed troops and made his way in the night on to the ground which the Gauls thus left clear for him. This would be the plateau near Montaud, of which the capture was exactly analogous to that of the Peiwar
THE FIRST BATTLE

Kotal. At dawn the army moved out of the camp, ascended the plateau, and entered the defile beyond. Then the returning Gauls saw their opportunity, and attacked the column when a large part of it was already committed to the defile. An examination of the ground, especially between Montaud and Noyarey, leaves no doubt that an army in the situation described might very well have lost 4,000 or 5,000 men and a large number of horses and mules. Even the easier descent to Veurey might also have been disastrous. The essential point in any attempt to identify the site of this first battle is that we must distinguish between the frontal position seized by Hannibal in the night and the subsequent defile in which the disaster occurred. The position of Montaud with the defile in rear is the only site which has been suggested that complies with these essential conditions. The words of Livy, 'praecipites deruptae utrimque angustiae,' have been taken to describe a path along the top of a ridge precipitous on each side. But this in the conditions is a military absurdity. The road must have been en corniche with a precipice falling down on one side and a precipice rising up on the other.

When he had dispersed the Allobroges and restored order in his column, Hannibal pushed on with such men as he could collect and seized the enemy's town, according to Livy their capital, where he obtained fresh horses and mules, as well as corn and cattle enough to supply his army
for two or three days. This would be possible only at a considerable town such as Grenoble, which is first heard of as one of the capitals of the Allobroges, and would be reached from Noyarey by cavalry in less than an hour, and by infantry in a couple of hours.
V

THE SECOND BATTLE

From the town of the Allobroges Hannibal marched three days unmolested. During the fourth day he was met by a fresh set of native chiefs offering friendship but planning treachery, which resulted in a great attack upon his army two days later, when engaged in a defile. The probable place of this meeting with the chiefs seems to be the entrance to the valley of the Arc, which Hannibal would easily reach on the fourth day from Grenoble. The Arc here skirts the foot of the cliffs on its left bank, and the road may very well have followed a pass over the hills instead of the bank of the river. In that case Hannibal probably left the Isère near Pontcharra and marched by La Rochette and the Col of the Grand or Petit Cucheron. Either here, or near Aiguebelle if he followed the course of the Arc, he was met by the chiefs who offered to guide him.¹

¹ Colonel Perrin proposes as the site of the first battle the ascent from Chamoux to Montandry. Lieutenant Azan would place it at the Col of the Grand Cucheron. Neither of these sites fulfils the conditions. Either of the positions proposed could have been turned by Hannibal, and in neither case is there a subsequent defile of the kind required. Colonel Perrin and Lieutenant Azan are compelled to look for a site for the first battle further north than the Bec d’Echaillon, because they make Hannibal cross the Rhone north of Avignon and are compelled to measure 1,400 stadia from the point of passage.
He accepted their company without dismissing his suspicions.

He probably advanced some miles further during this fourth day. After two further marches came the great attack when the army was in the defile. The ground that best corresponds to the story is near St. Michel. Here the valley is almost entirely blocked by the Rocher de la Porte, which has a precipitous edge several hundred feet high, and is nearly a mile long from flank to flank of the valley, having at its south end a narrow gully in which there is room only for the river, the road, and the railway. Above this rock the valley is for many miles so narrow as to have no flat ground at all. Below the rock it is wide enough for the army to have marched in several parallel columns. This is just the place where the tribes would combine their attack, for at this point descend the principal side-routes into the valley—the one from the north over the Col des Encombres, the other from the south over the Galibier. Here then the tribes could arrange to concentrate suddenly. Hannibal’s cavalry column being in front and the infantry coming up behind, the Gauls would cut the column in two. Hannibal would storm the rock at its north end, where it is accessible, and would then deploy his army against the crowds of natives. This would occupy the natives and give the mounted troops time to escape. The natives would be unable to stand against the Carthaginians once they had gained
the level top of the rock. The fortress-like nature of this rock, which is as white as any that can be found in the Alps, absolutely corresponds with the words of Polybius, 'a strong (or fortress-like) white rock.' There is nothing resembling it either on the route of the Little St. Bernard, on that of the Mont Genèvre, or on that of the Col de Larche.

Next day Hannibal pushed on with his infantry and joined the mules and the cavalry, and on the ninth day, apparently the third day after the battle, encamped on the summit of the pass.
VI

THE PASS AND THE DESCENT

The Col du Clapier is like a trough three or four miles long and half a mile wide which has been planed out in a straight line across the main ridge of the Alps. The promontory on which the trough ends is 8,000 feet above the sea. The peaks on each side rise up nearly 3,000 feet above the bottom of the trough, that on the east being Mont Giusalet, that on the west the Aiguille de Savine, of which the ridge is prolonged for some miles to the south beyond the point where the pass ends in the promontory from which the view of Italy is obtained. On this ridge about a mile from the promontory lies the sloping glacier Del Agnello. The descent from the pass is into a great amphitheatre, of which the sides are so steep as to be for the most part precipitous. The streams that run down these sides collect into the Clarea, which rises between the promontory and the glacier, drains the amphitheatre, and runs through a deep gorge into the Dora Riparia. There are two ways down from the Col. The ordinary path descends into the amphitheatre, follows the left bank of the Clarea and leads through the gorge to Giaglione. But there is an alternative route which skirts the top of the amphitheatre on the right-hand side, keeping pretty
nearly level till it reaches the huts of Tuglia, where it crosses a ridge and descends into the valley of the Dora. It passes some distance below the glacier Del Agnello. The path leading to Tuglia is thus a path en corniche, and there is a point at which it has in quite recent years been carried away by landslides. The direct descent into the amphitheatre is after the first quarter of a mile exceedingly steep, and if the traveller strays a few yards from the path he finds himself looking down a precipice. In 1690 the Vaudois on their march from Switzerland, known as ‘the glorious return’, encamped on the Col du Clapier, and next morning continued their progress in a mist by Tuglia to Exilles. But a portion of them by mistake descended the ordinary path, to find the gorge which is the exit from the amphitheatre blocked by the Piedmontese troops. Some of them escaped by a terrible climb from the bottom of the valley up to Tuglia. The corniche path by Tuglia was followed in 1794 by a small French column destined to attack Exilles.

While Hannibal was on the pass there was a fall of snow, which was renewed during his descent. Polybius says that the descent was steep and narrow, and the path hidden by the snow, and that those who missed it fell over the precipices. The head of the column shortly came to a place which, in consequence of a recent landslide following upon an earlier one, was for a space of 300 yards too narrow for the mules or the elephants to be able to pass. Thereupon Hannibal attempted to
find a way round. But a fresh fall of snow made the roundabout way impossible, and he gave it up. 'What occurred,' says Polybius, 'was peculiar and extraordinary. For the new snow having just fallen upon that which was there before and had remained from the previous winter, was easy to penetrate, being fresh, still soft, and not yet deep. The men therefore trod through it on to the hard snow below, which their feet did not penetrate but slipped from under them. Then when they tried to rise, propping themselves up with their knees or their hands to stand up again, they slid along all the more, as the place was very steep. The mules, however, penetrated the frozen snow below and stuck fast in it.' This seems to be a description of an attempt to cross a glacier. With it may be compared Mr. Ellsworth Huntington's account of his crossing the Chang La pass in Tibet (The Pulse of Asia, p. 71):—

'The ascent was not specially difficult, as we started at night when there was a stiff crust on the snow. On the farther side the coolies made good progress, although the new snow, which had fallen to a depth of eight or ten inches on the old crust since last I crossed, became soft almost as soon as the sun rose. The animals, however, even though none of them carried loads, broke through and floundered and struggled pitifully, scarcely able to draw their bleeding legs out of the deep holes in the icy crust.'

Hannibal gave up the attempt to find a way round, and proceeded to repair the broken path,
which after one day's work was practicable for the mules and horses, which were at once sent down to a camp below the snow-line. Two more days' building at the path made it possible to lead down the elephants.

The story as told by Polybius suggests that the path which Hannibal thus repaired was the corniche leading from the Col to the huts of Tuglia, and that the circuitous route which he attempted, but had to give up, led over the glacier Del Agnello, by crossing which he could have reached the Col d'Ambin. But Livy has a different version. According to Livy, the broken road was a landslip which had transformed the path into a precipice 1,000 feet deep, and the road which Hannibal quarried led down the face of this precipice. According to this version, Hannibal must have descended by something like the existing path into the amphitheatre, which exactly corresponds with the first few sentences of the narrative of Polybius where he says that all who missed the path fell over precipices, and which by a slight landslip could at any time be transformed into just such a precipice as Livy describes. Livy repeats precisely the story told by Polybius of the attempt to cross the glacier and of its failure.

The explanation suggested by several visits to the pass, and repeated study of the text of both writers, is that Hannibal made use both of the descent into the amphitheatre and of the corniche.
The infantry would start down the ordinary path, and in spite of the accidents many of them would go that way. Hannibal would think it too dangerous for his horses, mules, and elephants, and would start with them along the corniche. Then he would try the glacier, and having given that up would repair the broken corniche for the animals.¹

¹ I have made only the descent by the Granges de Savine to Giaglione, and have neither followed the corniche nor examined the glacier, both of which I suspect would repay the scrutiny of an expert cragsman interested in Hannibal.
VII

REJECTED HYPOTHESES

A series of visits to the Alps, and especially the examination of all the principal passes (repeated again and again for the Mont Genèvre and the Col de Larche) as well as of the valleys leading to the passes, have convinced me that the route which has here been traced fully accords with the text of Polybius, and offers a satisfactory explanation of the apparent discrepancies between Livy and his Greek predecessor. The acceptance of this route clears Polybius of the charges of ambiguity and obscurity brought against him by modern writers who have lacked the diligence or the opportunity to interpret him.

Mr. Heitland, in his *Roman Republic*, published five years after the researches of Captain Colin, says that 'no certain inferences can be drawn from the loose descriptions of Livy or even Polybius'.

The account of the march which has been given may perhaps carry conviction to some minds. But much authority is commonly attached to distinguished names, and the weight which is rightly carried, for example, by the opinion of a scholar like Mommsen on the meaning of an inscription, is transferred to his opinion on a problem of

1 *The Roman Republic*, i, p. 233.
military geography, for the solution of which he had no special qualification. It therefore seems desirable not only to give here the reasons why the passes other than the Clapier must be unconditionally rejected, but also to show how and why, before the Clapier had been suggested, an Arnold and a Mommsen could accept the Little St. Bernard, an Ellis the Mont Cenis, a Hennebert the Mont Genèvre, and a Freshfield the Col de Larche.

The first witness against the commonly accepted passes is Thomas Arnold himself, who wrote: 'The account of Polybius is so unscientific and so deficient in truth and liveliness of painting, that persons who have gone over the several Alpine passes for the very purpose of identifying his descriptions can still reasonably doubt whether they were meant to apply to Mont Genèvre or Mont Cenis or to the Little St. Bernard.'

It is remarkable that Arnold should have inferred from these doubts that Polybius was careless or inaccurate, instead of reaching the obvious conclusion that no pass which did not correspond to the account of Polybius could reasonably be supposed to be the one that he was describing.

The principal sources of error arise from the neglect to ascertain exactly where Polybius indicates that Hannibal crossed the Rhone, and where he expressly says that he came down on to the plain of Italy. Polybius says in a passage summarizing the march, that Hannibal having made

1 History of Rome, iii, p. 484.
the whole journey from New Carthage in five months, and the passage of the Alps in fifteen days, came down boldly to the plain of the Po and the tribe of the Insubres. The Insubres lived in the neighbourhood of Milan, east of the Ticino, and those who think that Polybius means that Hannibal reached the plain in the territory of the Insubres imagine that such a description would be met by his reaching the plain at Ivrea, where the route of the Little St. Bernard ends, although Ivrea was not in the territory of the Insubres and is fifty miles west of the Ticino. Mr. Freshfield thinks he has complied with the text of Polybius just quoted by bringing Hannibal down among the Vagienni, although they were a hundred miles from the Insubres, because the Vagienni were of Insubrian descent. But the passage of Polybius is a summary, and in it the Insubres are mentioned because they were the allied tribe which Hannibal was to join. In the sixtieth chapter Polybius clearly and distinctly says that as soon as Hannibal reached the plain he encamped under the very slope of the Alps, and that the Taurini were the tribe who lived beside this slope. The interpretation that Hannibal first touched the plain in the territory of the Insubres is untenable, because no pass leading from the Rhone valley to the Alps could possibly comply with it.

The evidence against the Little St. Bernard is sufficiently accumulated in Thomas Arnold's own notes, for Arnold points out the probability
that ‘Hannibal passed by some much higher point than the present roads over the Little St. Bernard and Mont Cenis.’ Again Arnold says: ‘I lay no stress on the “roche blanche”; it did not strike me when I saw it as at all conspicuous; nor does the λευκόπετρον mean any remarkably white cliff, but simply one of those bare limestone cliffs which are so common both in the Alps and the Apennines.’ Arnold had not seen the Rocher de la Porte, and ignored Polybius’s word ὄχυρον, ‘like a fortress.’ The Little St. Bernard has no view of Italy, and for the difficult place on the descent Arnold fixes on the river gorge below La Thuile, where the road or path follows the side of a steep cliff at a height of twenty or thirty feet above the level of the stream. This gorge would not have long delayed an army of 20,000 men, who would easily have made a causeway, if need be, on one side or the other in the bed of the stream itself. No army could march from the gorge of La Thuile to the plain at Ivrea in three days.

As regards the crossing of the Rhone, the modern historians have been put on the wrong track by Napoleon, who wrote at St. Helena, ‘Hannibal crossed the Rhone above its confluence with the Durance and below its confluence with the Ardèche. He passed above the confluence of the Durance because he did not wish to direct his march upon the Var; he passed below the con-

Vol. iii, p. 485.
fluence of the Ardèche because there commences the chain of mountains which almost precipitously commands the right bank of the Rhone as far as Lyons, while the valley on the left bank is several leagues wide. From the mouth of the Rhone to its confluence with the Ardèche is twenty-eight leagues; it is probable that Hannibal crossed four leagues lower down at the level of Orange, twenty-four leagues or four days' march from the sea.'

This is Napoleon's theory of what Hannibal would be likely to do, and Napoleon further relied on the four days' march from the sea. Napoleon did not know Greek, and can hardly have had before him a translation of Polybius close enough to show that that historian represented Hannibal as crossing at the head of the delta; nor did he observe that the four days' march was that of Scipio, and if it had taken him to Orange, must have taken him across the Durance, which he dared not have attempted to pass in the neighbourhood of a superior enemy. Hannibal crossed the Rhone with something like 38,000 infantry and 8,000 cavalry (Polybius, iii. 60). Scipio's army was 22,000 infantry and 2,000 cavalry.

All the writers from Napoleon onwards until Colin have made Hannibal cross the Rhone above the confluence of the Durance. They fail to see that Livy's description of the passage of the Durance is perfectly appropriate though slightly in the wrong place, and are therefore compelled to make
Hannibal cross the Durance in its upper course. By fixing the crossing of the Rhone too far north they are led to look for the Island much too high up the Rhone valley. This accounts for the conjecture that the river whose confluence with the Rhone formed the Island was the Isère, and for the emendation of Livy’s text to suit that conjecture.

Napoleon thought that Hannibal would take the shortest route through the Alps, which was either that up the valley of the Arc, eventually leading to Susa, or that following the road which Napoleon himself rebuilt, leading from Grenoble by Bourg d’Oisans, the Lauteret, Briançon, and the Mont Genève to Susa.

In point of distance there is little to choose between these two routes. But that by the Lauteret could hardly have been possible for an army before the days of road-making. It threads a number of exceedingly difficult gorges and crosses the high pass of the Lauteret. The Mont Genève has no view of Italy, no glacier near it, no such difficulties in the descent as are described by the ancient authors, and is more than three days’ march from the plain. The Mont Cenis route is identical with that of the Clapier as far as Bramans, but from Bramans to Susa it is considerably longer, and nowhere offers such a view of the plain of Italy as is described by Polybius and Livy.

The hypothesis that the Island was the Rhone valley above the Isère is inconsistent with most
of the statements made by Polybius about the Island. The Island was especially fertile, which is not the quality of the land north of the Isère. The mountains do not even in appearance form the base of a triangle, of which the two rivers are the two other sides. Polybius distinctly says that the mountains forming the base of the triangle were impassable, and yet many modern writers make Hannibal cross these very mountains. Mommsen and Arnold put the first battle at the Mont du Chat, but this is a single ridge which would be perpendicular to Hannibal's route. Once Hannibal by surprise had gained possession of any part of the ridge, he would have been able to drive off the enemy from any point of command, so that the subsequent disaster could not have occurred here.

Mr. Freshfield proposes as Hannibal's pass the Col d'Argentière or Col de Larche. He assumes the Island to be the country between the Rhone and Isère. Apparently he thinks that Hannibal did not enter this Island, but started from Valence and went by Vizille and Corps to the Col Bayard, then crossed the Durance and marched up its left bank to Guillestre, then crossed the Col de Vars to St. Paul, and so made his way up to the Col de Larche. Mr. Freshfield apparently thinks that Livy and Polybius are describing different routes. He rejects Polybius, and professes to follow Livy. When Livy says that after settling the dispute

in the Island, Hannibal turned to his left, Mr. Freshfield, who has made Hannibal march up the Rhone to Valence, makes him go off towards Grenoble or Vizille. As to the direction, Mr. Freshfield is satisfied if Hannibal had on his right 'the direct road to Italy', and it is quite clear to him that this road went up the valley of the Drome. Mr. Freshfield puts the first battle at the Col Bayard. He therefore rejects the statement of Livy that Hannibal met with no opposition before he reached the Durance. Livy further says that from the Durance onwards Hannibal marched across a plain to the Alps, but there is no plain whatever in the upper valley of the Durance or between it and the Alps, nor is it intelligible that on this theory Hannibal is not supposed to reach the Alps until after he has crossed the Durance. Surely Grenoble, Vizille, and Corps are all of them in the Alps. Mr. Freshfield, like Arnold, thinks that a 'white rock' can be found anywhere. He cannot bring himself to include among the requirements a panorama of Italy. He places the difficulty of the descent at the Barricades, a defile through which the Stura flows, surmounted on one side by a high perpendicular cliff and on the other by the gentle spur of a hill which falls precipitously to the stream. The old road went over the spur of the hill, which presents no difficulties whatever, nor would there be any difficulty in marching an army through the defile itself beside the bed of the stream. The sole difficulty of the defile of the
Barricades in war is that which has sometimes been caused by an enemy's resistance. But no resistance was offered to Hannibal on his descent. There is on the descent from the Col de Larche no possibility of men or mules falling over a precipice. There is no glacier near it, and no place whatever where snow can remain from the year before.

The truth is that Mr. Freshfield has not been guided either by Polybius or Livy, the statements of both of whom he brushes aside wholesale. His case rests entirely on a passage quoted from Varro by a fifth-century grammarian as follows: 'Varro says that the Alps can be crossed by five routes: one by the sea through the Ligurians; a second by which Hannibal crossed; a third by which Pompeius set out to his war in Spain; a fourth by which Hasdrubal came from Gaul into Italy; a fifth which was formerly held by Greeks, so that the Alps through which it passes are called Greek' (i.e. the Graian Alps). Mr. Freshfield assumes that these five passes correspond to the five modern high-road passes: the Corniche, the Col de Larche, the Mont Genèvre, the Mont Cenis, and the Little St. Bernard. He assumes that Varro enumerates them in order from south to north, that Hasdrubal made use of the Mont Cenis and Pompeius of the Mont Genèvre, and that the first is the Roman road along the coast. Mr. Freshfield therefore infers that Varro believed Hannibal to have crossed by the Col de Larche.
Between Mont Blanc and the sea there are more than thirty passes crossed by regular mule-tracks or by footpaths. During the eighteenth and nineteenth centuries high roads have been made over four of them, the Little St. Bernard, the Mont Cenis, the Mont Genèvre, and the Col de Larche. In Hannibal’s time there was of course no high road. He had to choose one of the numerous mule-tracks. The early nineteenth-century historians, however, assumed that he must have gone by one of the high-road routes, and confined their attention to these. This is the explanation of the various conflicting hypotheses which they set up. The high-road routes before the high roads were made were not necessarily more convenient than the others for armies on the march. To the pedestrian it is more important that the length of his pass should be comprised within a single day’s walk, than that it should be of moderate height. One of the most frequented passes for pedestrians, especially for Italian workmen seeking employment in France, is the Col d’Agnel, which is 9,000 feet high. The road engineer is indifferent to distance, and seeks a gentle slope, which, if it is not offered him by nature, he creates by endless zigzags.

In the exposition here given care has been taken to avoid a priori theories of what Hannibal would be likely to do, but it may now, in conclusion, be pointed out that the route which has been shown to conform to the accounts of the ancient historians
is also that which would be commended to Hannibal by purely military considerations.

The effect of mountainous country on the movement of an army is of three kinds. It adds to the fatigue of the troops, it adds to the difficulties of supply, and it adds to the dangers which may be caused by armed opposition. In a populous and fertile plain such as the valley of the lower Rhone an army of 50,000 men on the march would find plenty of food, though if it remained long in one place it might produce a famine. But in the Alpine region the population is sparse, food scarce, and the stores of it limited. No general would plunge into such a country unless he expected to carry with him supplies for his army during the whole of its passage through the mountain region. An army on the march always loses men from fatigue, and every increment of fatigue causes the loss of an increasing proportion of its men. The best way to keep down losses from this cause would be to make the fatiguing marches as few as possible; in other words, to choose the shortest way through the mountain region. If the army must carry its food through the mountains, the shorter the route through them the smaller the number of days for which the supply will be needed, and the less, therefore, the burden to be carried. Moreover, the shorter the line taken through the mountains the shorter the time during which the army would be exposed to the peculiar dangers which might be caused by armed opposition.
The route from St. Nazaire by Montaud, Noyarey, Grenoble, the valley of the Arc, and the Col du Clapier to Susa and Avigliana, is both the shortest route through the Alps from France to Italy and the route which offers the fewest and least formidable defiles. It coincides, except in the actual pass, with the route which commended itself more to Napoleon’s military judgement than any other except one, along which he had himself found it necessary to reconstruct the military road.