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‘A RECONNAISSANCE IN SOUTH-WEST PERSIA’

Holding Institution	British Library: India Office Records and Private Papers
Reference	Mss Eur F112/397
Date(s)	1891 (CE, Gregorian)
Written in	English in Latin
Extent and Format	1 volume (42 folios)
Copyright for document	Public Domain



About this record

Narrative report on surveys conducted in south-west Persia [Iran]. The structure of the report is in two parts. The first part concerns British relations with Arabs, Persians and the Bakhtiaris [Bakhtiyārīs] during the reconnaissance of south-west Persia. The second part contains reports of routes leading into Bakhtiari country from the south-west. In addition, there is an appendix containing an account of a journey across the Bakhtiari mountains during 1890-91, which is written by Major Bruce, 19th Bengal Lancers.

The report is by William Daniel McSwiney. The survey work was carried out by Assistant Surveyor Imam Sharif, Khan Bahadur [Imām Sharīf, Khān Bahādur].

The report contains the following illustrations:

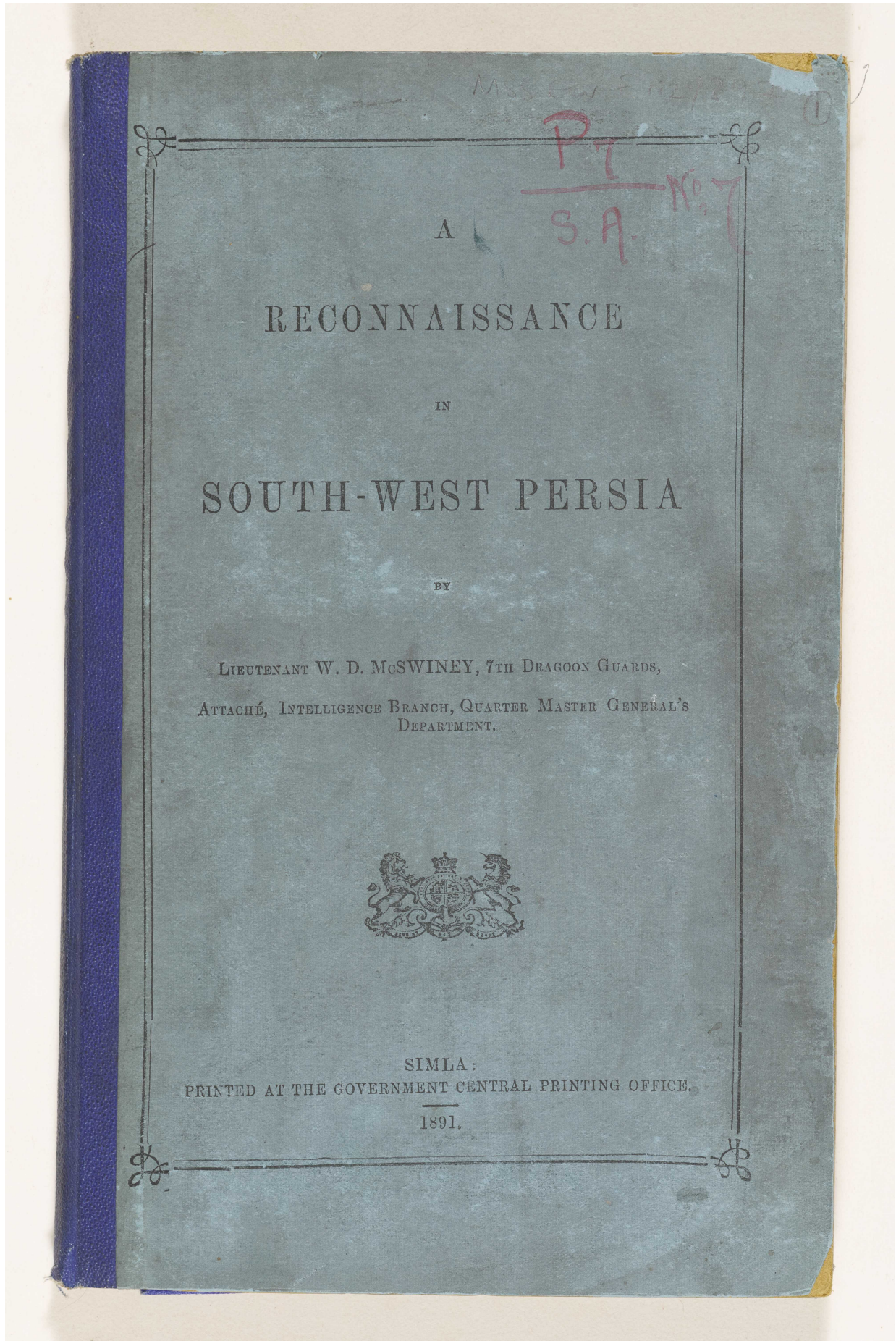
- ‘Reconnaissance Sketch of The Dizful [Dezful] Bridge.’ (f 10)
- ‘Reconnaissance Sketch of The Khushi Khana on the right bank of the Ab-i-Diz [Rudkhaneh-ye Dez], which commands the town of Dizful.’ (f 14)
- ‘Distant View of the Snow Covered Bakhtiari Mountains looking East from Dizful, November 1890.’ (f 16)
- ‘View of the River Ab-i-Diz as it flows into the “Gorge” on the north side of the Kilah

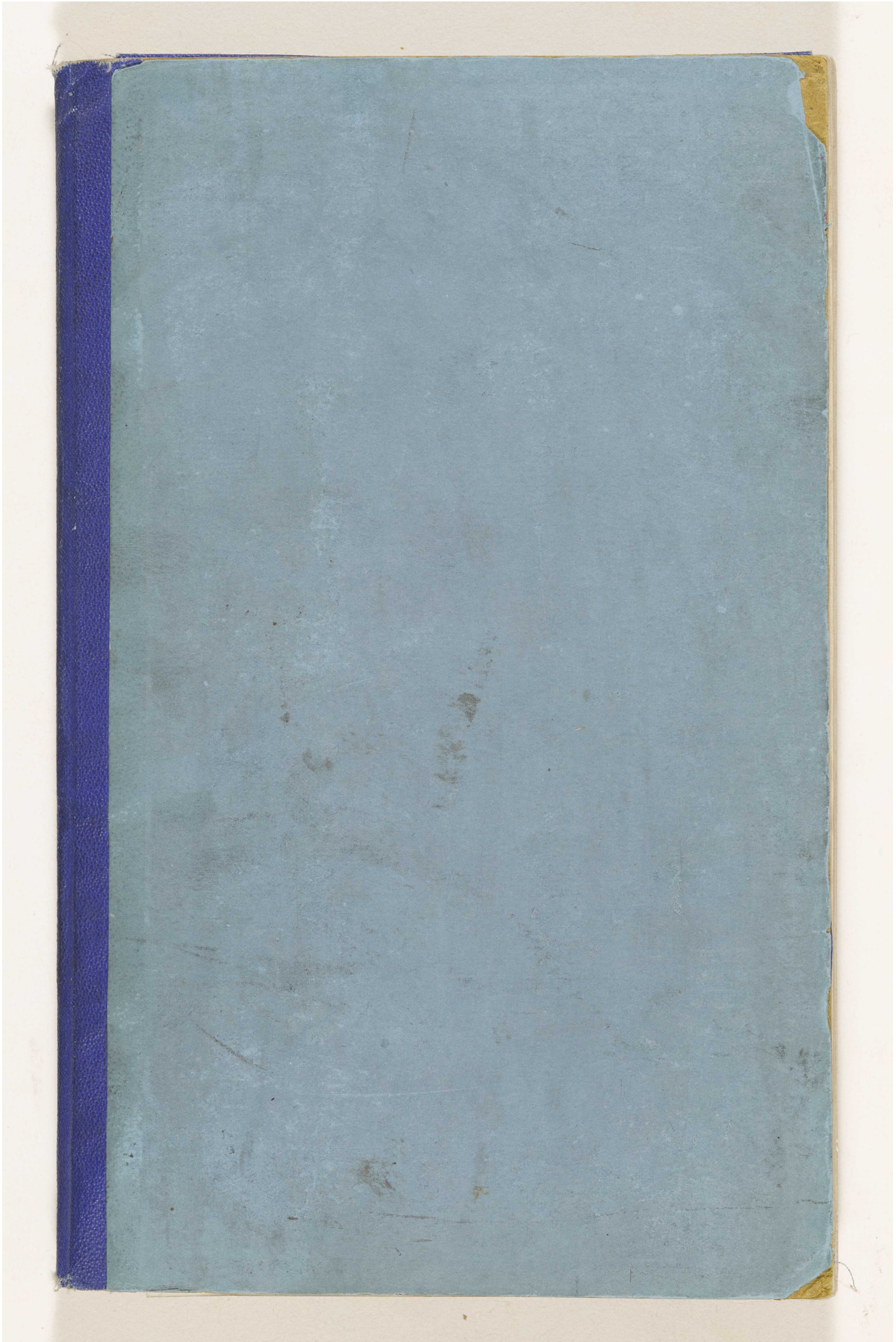
Shahid.' (f 18)

- 'View of the Country Over the Plan of Dumakail looking east from the highest point on Kilah Shahid.' (f 20)
- 'One of the Broken Bridges Over the Ab-i-Diz at Pul-i-Kul.' (f 24)
- 'The Fort of Sar-i-Dasht [Sar Dasht, Khuzestan, Iran].' (f 26)
- 'Broken Bridge East End of the Tungi Baba Ahmad [Baba Tungi, Afghanistan].' (f 29)
- 'View of the Valley of Mal-i-Mir, December 1890.' (f 36)
- 'Bakhtiari Hut Built into the Side of the Hill at Chardeh, in which Major Bruce and Lieutenant W. D. McSwiney were snowed up in December 1890.' (f 38)
- 'Doorway of Above Hut.' (f 38).

The report also contains the following:

- 'Reconnaissance Survey of S.-E. Bakhtiari Country, May 1891, Surveyed by Assistant Surveyor Imam Sharif, K.B., Survey of India Department, superintended and assisted by Lieut. W. D. McSwiney, 7th Dragoon Guards.' (f 2)
- 'Reconnaissance Survey of S.-E. Bakhtiari Country, May 1891, Surveyed by Assistant Surveyor Imam Sharif, K.B., Survey of India Department, superintended and assisted by Lieut. W.D. McSwiney, 7th Dragoon Guards.' (f 3)
- 'Reconnaissance Survey of S.-E. Bakhtiari Country, May 1891, Surveyed by Sub-Surveyor Imam Sharif, K.B., Survey of India Department, superintended and assisted by Lieut. W.D. McSwiney 7th Dragoon Guards.' (f 4).
- 'Plan of Dizful' (f 42).



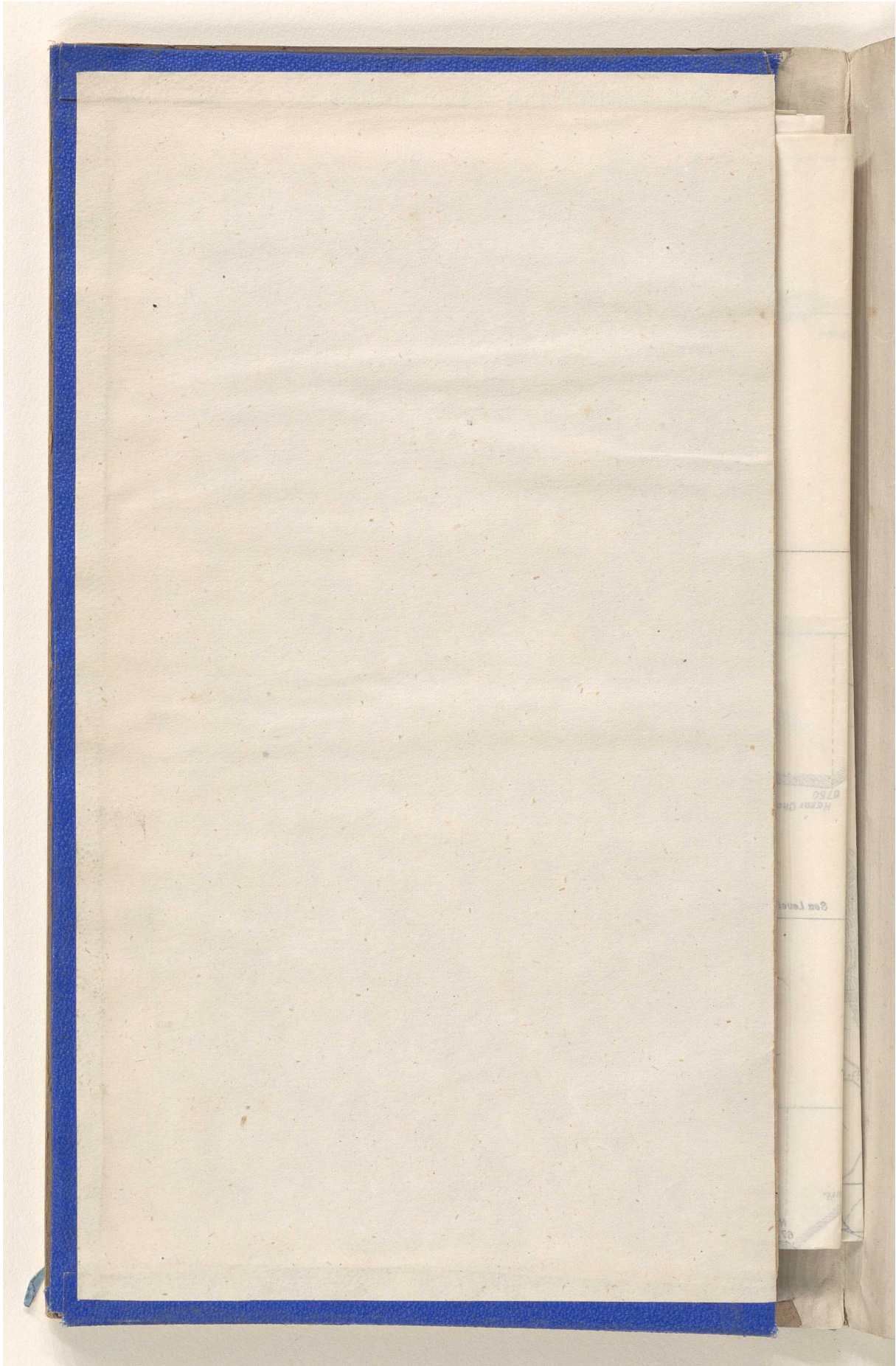




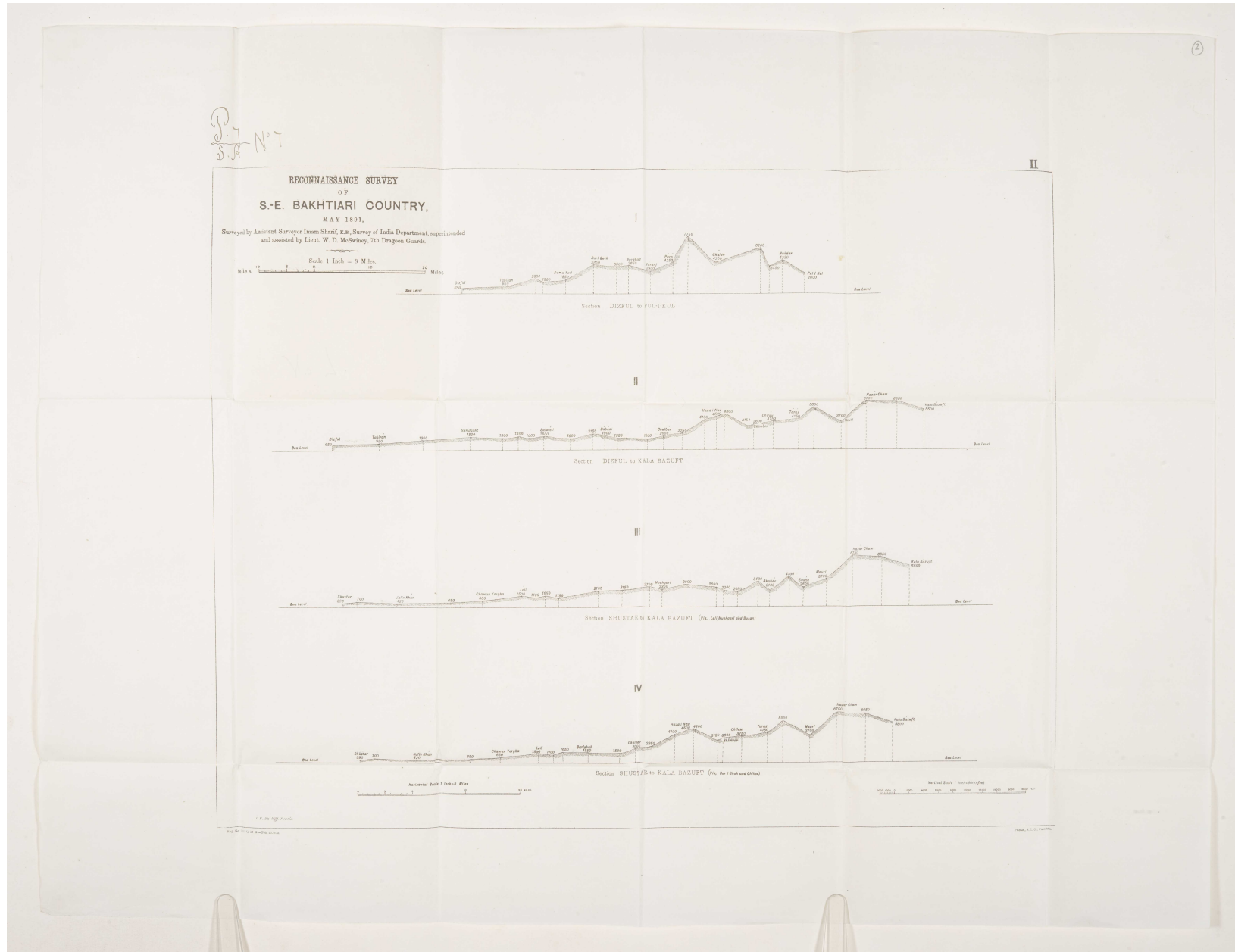




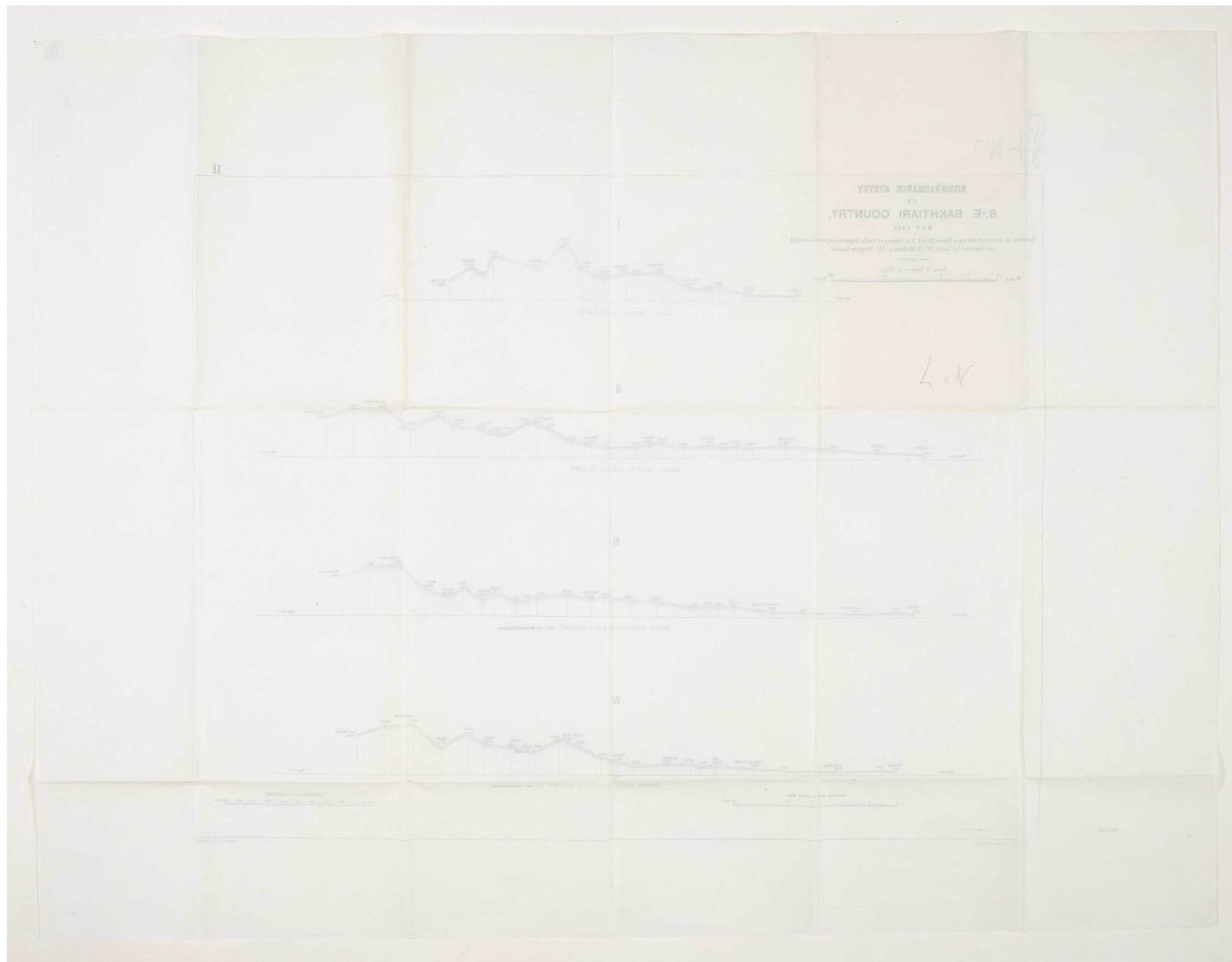




'RECONNAISSANCE SURVEY OF S.-E. BAKHTIARI COUNTRY, MAY 1891' [2r] (1/2)



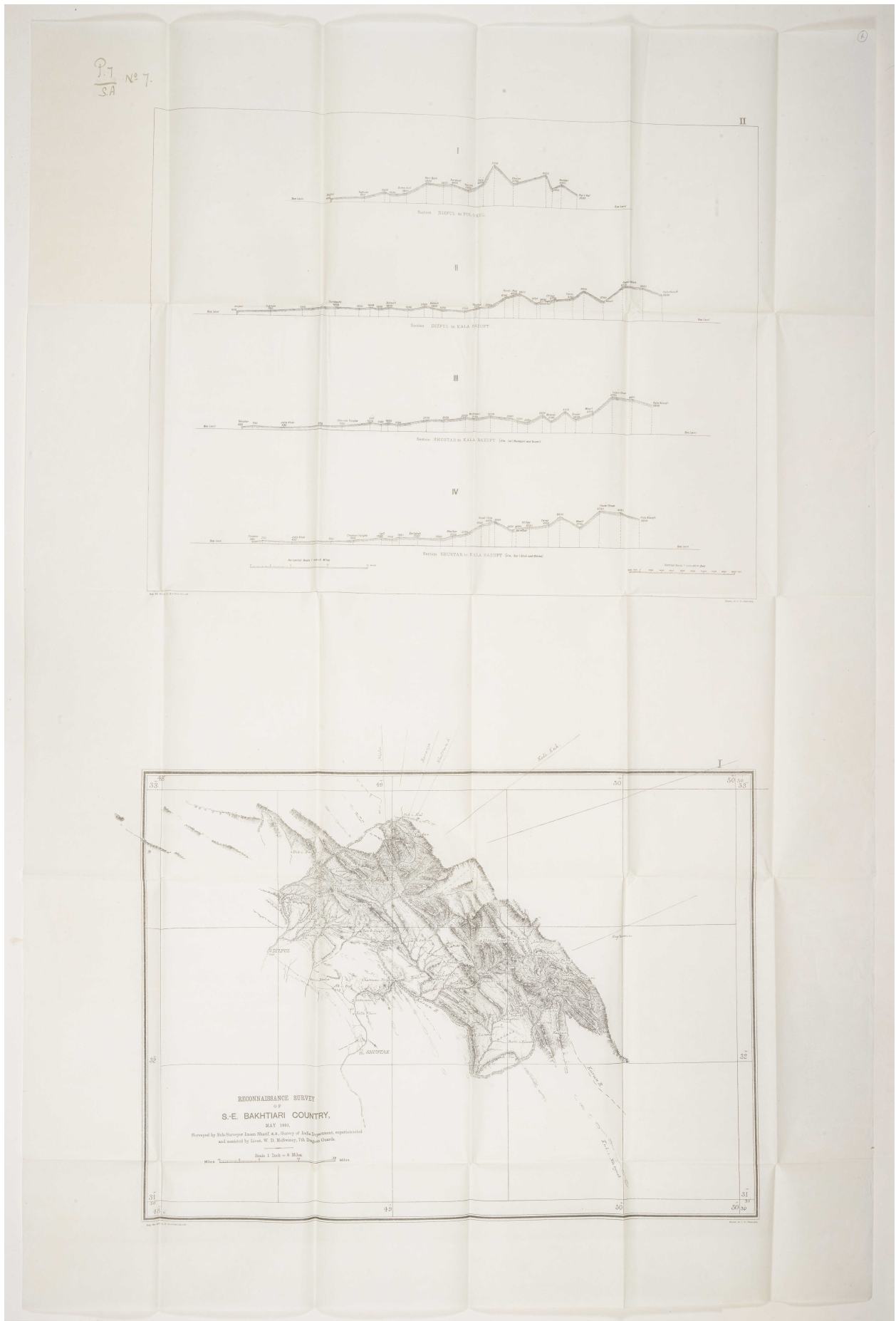
'RECONNAISSANCE SURVEY OF S.-E. BAKHTIARI COUNTRY, MAY 1891' [2v] (2/2)



'RECONNAISSANCE SURVEY OF S.-E. BAKHTIARI COUNTRY, May 1891' [3v] (2/2)

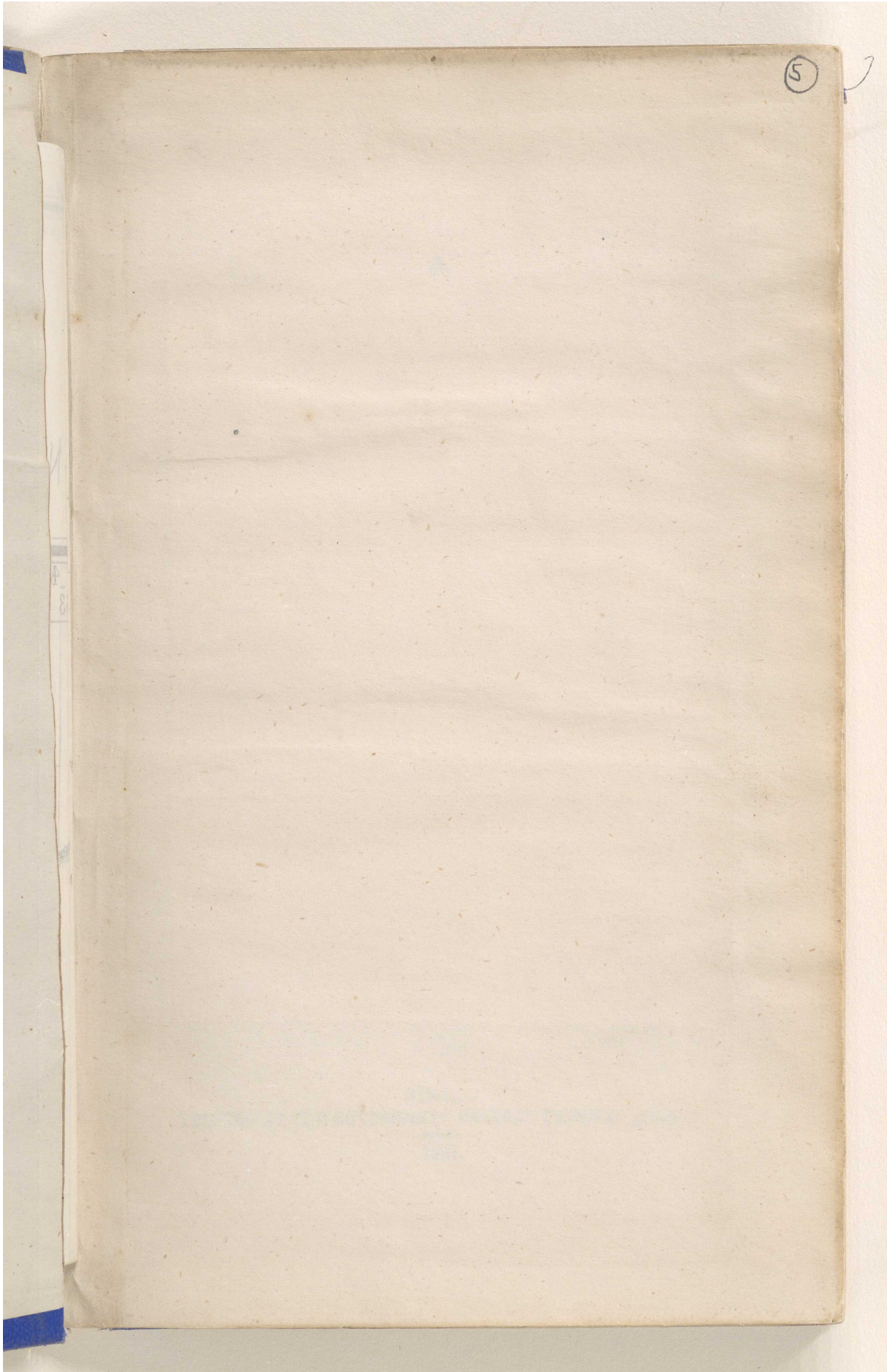


'RECONNAISSANCE SURVEY OF S.-E. BAKHTIARI COUNTRY, MAY 1891' [4r] (1/2)



'RECONNAISSANCE SURVEY OF S.-E. BAKHTIARI COUNTRY, MAY 1891' [4v] (2/2)





'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [5v] (15/90)

CUSTODY AND DISPOSAL OF SECRET BOOKS, REPORTS, &C., ISSUED BY THE
INTELLIGENCE BRANCH, QR. MR. GENL.'S DEPT. IN INDIA.

The attention of His Excellency the Commander-in-Chief having been called to the want of system in the custody, use and disposal of secret works, &c.. His Excellency desires that in future the following regulations may be strictly adhered to :—

(a) Officials to whom works of a secret nature are issued, will be held personally responsible for their safe custody, and they must be very careful to keep them under lock and key : and under no circumstances to leave them where they are likely to be observed by people who should have no access to them. They will submit half-yearly (on the 1st January and 1st July) to the Intelligence Branch a return showing that such matter is still in their possession.

(b) When an official to whom a secret work has been issued vacates his appointment or is transferred or proceeds on duty or leave (out of India for any period, or in India for any period exceeding 3 months), all secret works in his possession if held in his official capacity must be personally made over to his successor (be he temporary or permanent), and a report submitted to the Intelligence Branch by the officer handing over the issues showing that this has been done. The following is the form of report to be made :—

Certified that I have this day delivered over to....., the following secret works issued to me by the Intelligence Branch—

No.	Full Title of work.	No. of Vols.	No. of copies.	REMARKS. Explaining reason of handing over.

Place and date. *Signature*.....

Signature of receiving officer.....

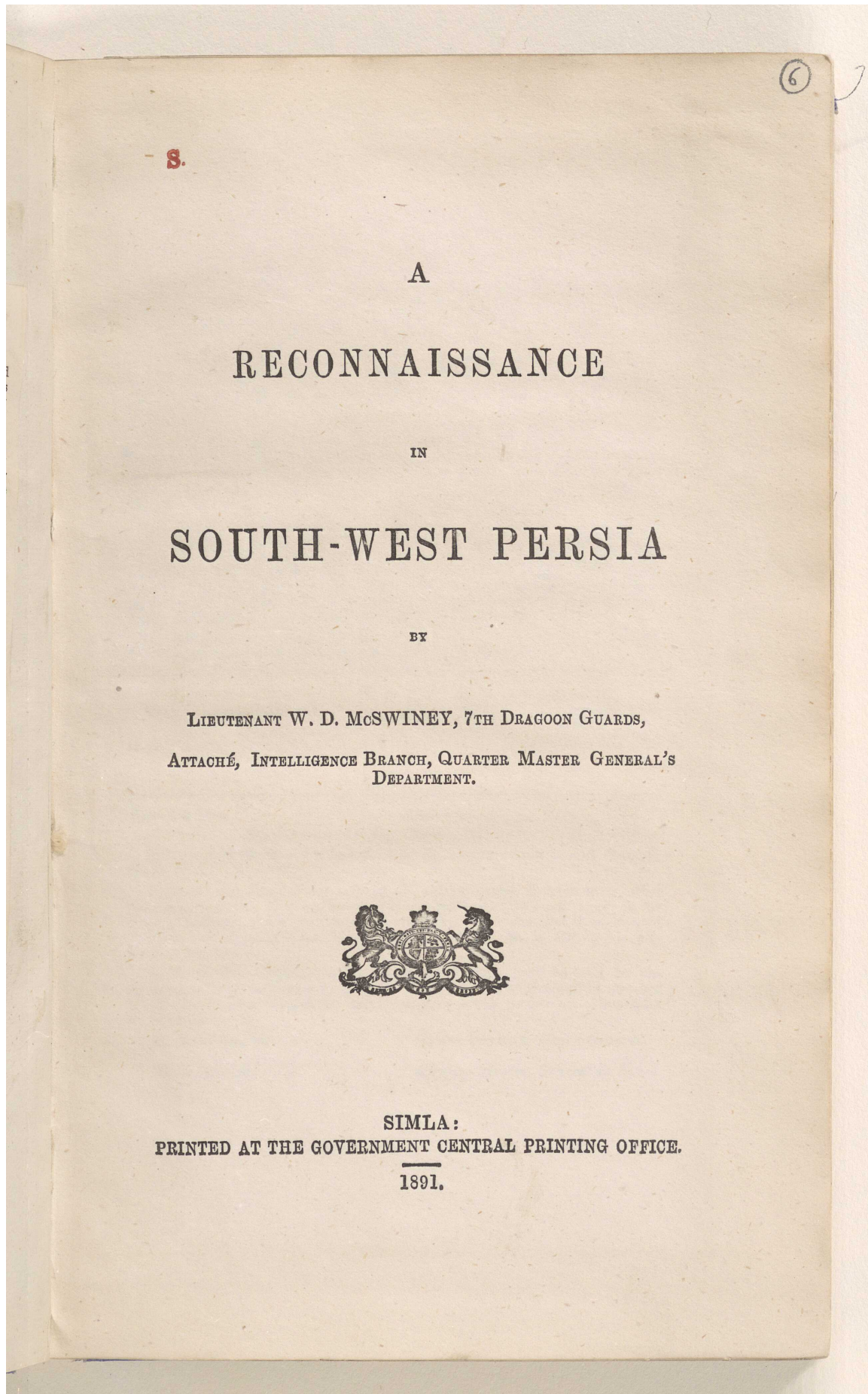
In the case of officers of the District Staff these reports must be sent through the G. O. C.

(c) In the case of an official leaving his station under circumstances other than above stated, it is optional for him to hand over the secret works in his charge to another officer with the above prescribed formalities, but if he does not do so, he is as responsible for them during his absence as he is during his presence at his station.

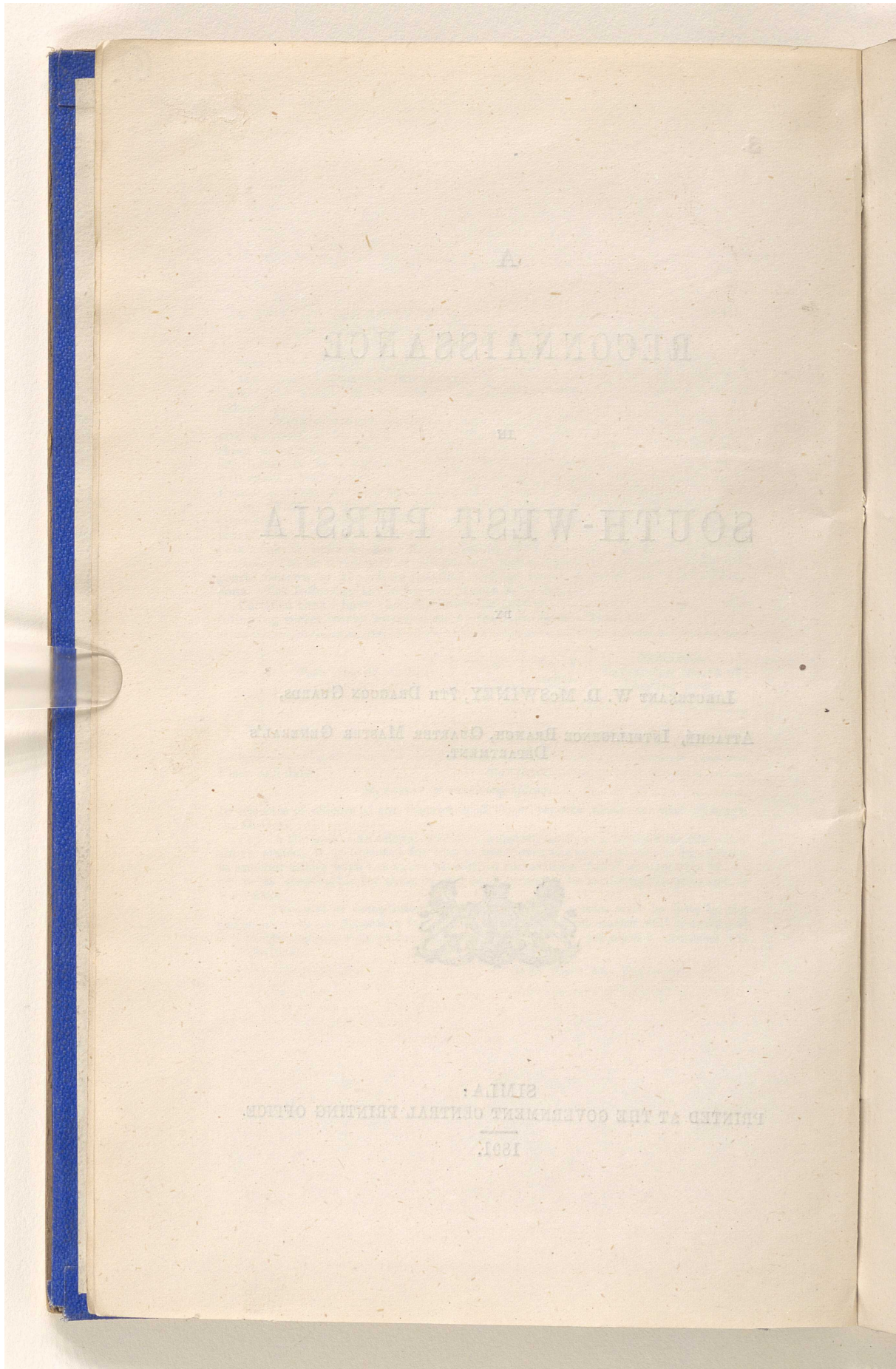
(d) Personal or complimentary issues of secret works will be held by the recipient until his departure from India, when the secret matter will be returned to the Intelligence Branch for safe custody, or special permission obtained for its retention.

Army Head Quarters, }
Simla, 1-10-1891. }

JAMES BROWNE, *Major-General*,
Quarter Master General in India.



'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [6v] (17/90)



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Custody and disposal of secret books, reports, &c., issued by the Intelligence Branch, Qr. Mr. Genl.'s Dept. in India.

The attention of His Excellency the Commander-in-Chief having been called to the want of system in the custody, use and disposal of secret works, &c., His Excellency desires that in future the following regulations may be strictly adhered to :—

(a) Officials to whom works of a secret nature are issued, will be held personally responsible for their safe custody, and they must be very careful to keep them under lock and key; and under no circumstances to leave them where they are likely to be observed by people who should have no access to them. They will submit half-yearly (on the 1st January and 1st July) to the Intelligence Branch a return showing that such matter is still in their possession.

(b) When an official to whom a secret work has been issued vacates his appointment or is transferred or proceeds on duty or leave (out of India for any period, or in India for any period exceeding 3 months), all secret works in his possession if held in his official capacity must be personally made over to his successor (be he temporary or permanent), and a report submitted to the Intelligence Branch by the officer handing over the issues showing that this has been done. The following is the form of report to be made :—

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Signature of receiving officer.....

In the case of officers of the District Staff these reports must be sent through the G. O. C.

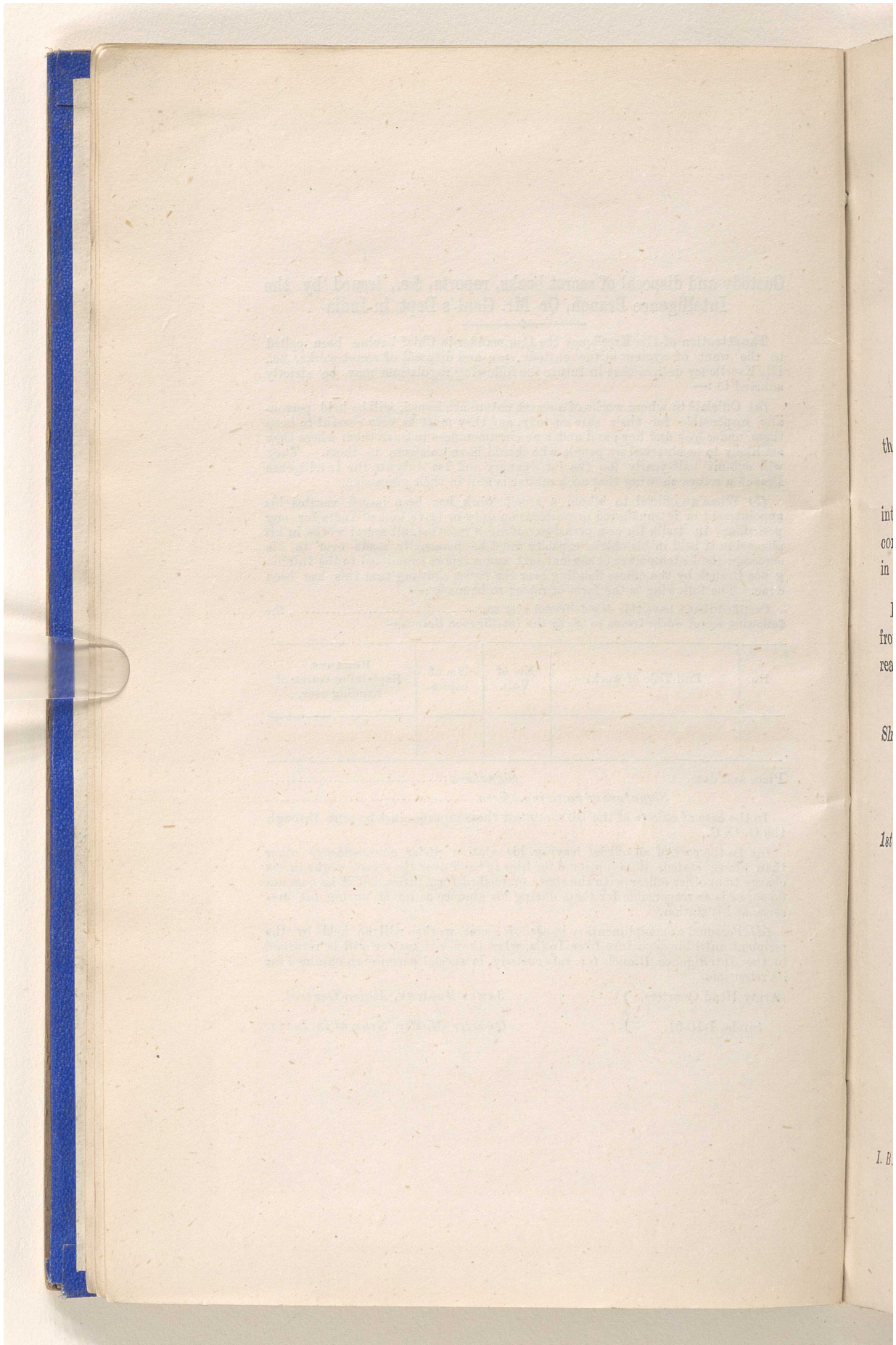
(c) In the case of an official leaving his station under circumstances other than above stated, it is optional for him to hand over the secret works in his charge to another officer with the above prescribed formalities, but if he does not do so, he is as responsible for them during his absence as he is during his presence at his station.

(d) Personal or complimentary issues of secret works will be held by the recipient until his departure from India, when the secret matter will be returned to the Intelligence Branch for safe custody, or special permission obtained for its retention.

Army Head Quarters, }
Simla, 1-10-91. }

JAMES BROWNE, Major-General,
Quarter Master General in India.

'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [7v] (19/90)



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PREFACE.

The report is in two portions.

The first treats of our relations with the Arabs, Persians, and the Bakhtiariis, during the reconaissance in South-West Persia.

The second contains the detailed road reports of routes leading into the Bakhtiari country from the south-west, with an appendix, containing an account of a journey across the Bakhtiari mountains in the winter of 1890-91 by Major Bruce, 19th Bengal Lancers.

It is based on personal observations and information derived from sources mentioned in the account which, I have every reason to believe, are fairly correct.

The survey work was carried out by Assistant Surveyor Imam Sharif, *Khan Bahadur*, who was placed under my orders.

SIMLA ;
1st November 1891. }

W. D. McSWINEY, *Lieut.*,

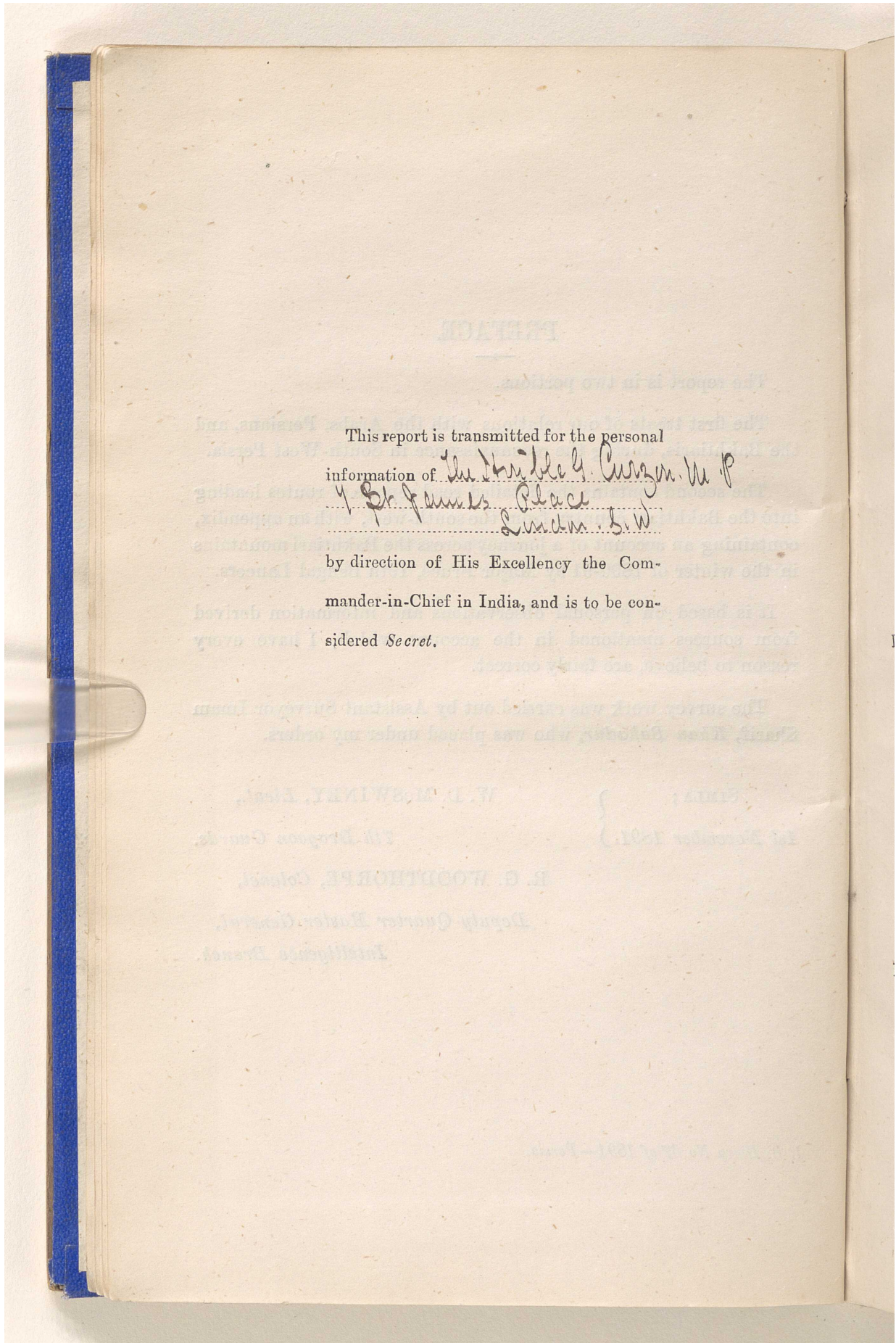
7th Dragoon Guards.

R. G. WOODTHORPE, *Colonel,*

Deputy Quarter Master General,

Intelligence Branch.

I. B. Diary No. 67 of 1891—Persia.



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PART I.

A short report on our relations with the Arabs, Persians and Bakhtiariis.

PART II.

Road Reports.

List of maps and sections contained in the pockets of this work.

I.—Reconnaissance survey of the south-west portion of the Bakhtiari country lying between the Rivers Ab-i-Diz and the Karun.—1891, scale 1" = 8 miles.

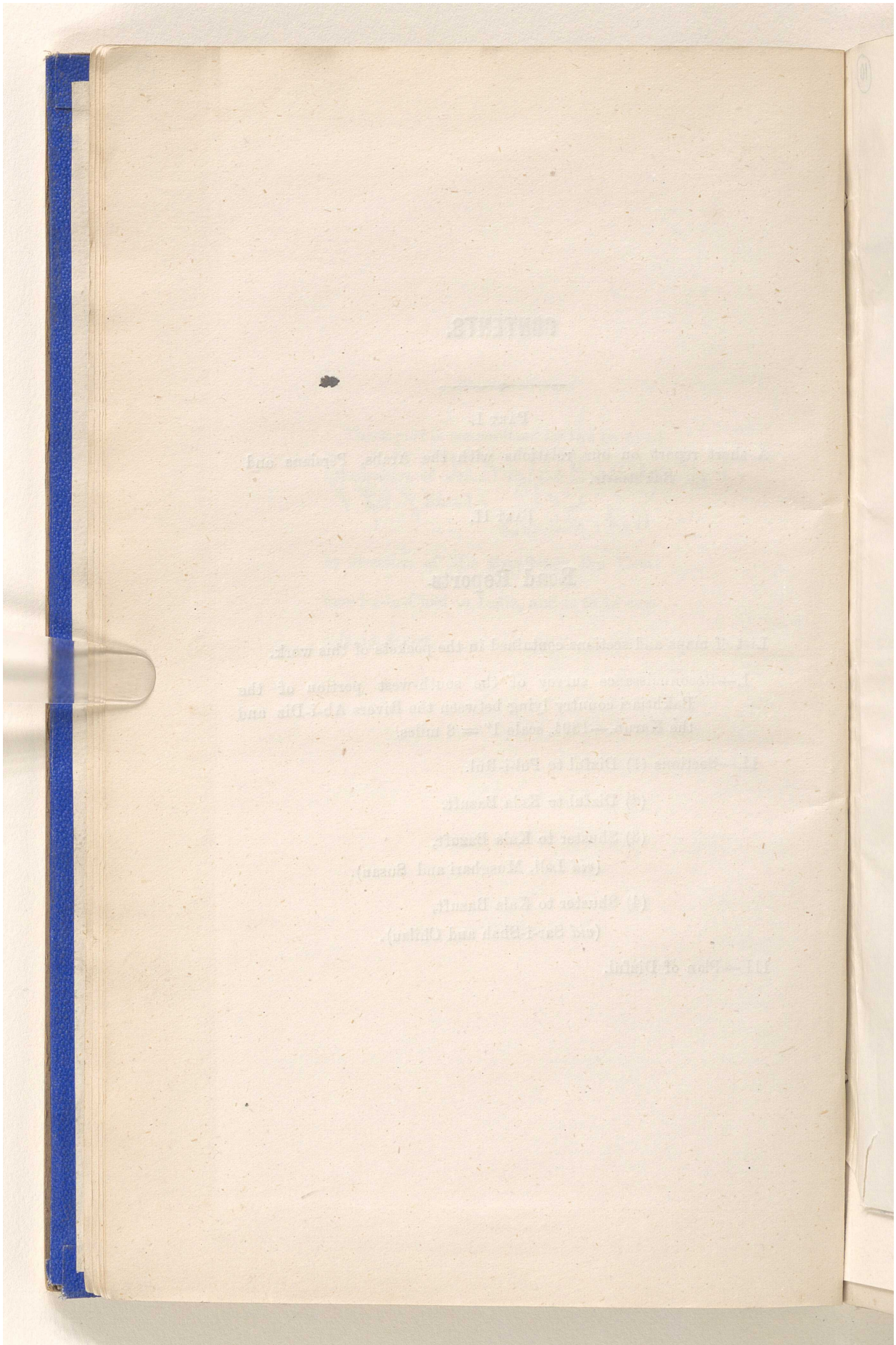
II.—Sections (1) Dizful to Pul-i-Rul.

(2) Dizful to Kala Bazuft.

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(*via* Lali, Musghari and Susan).

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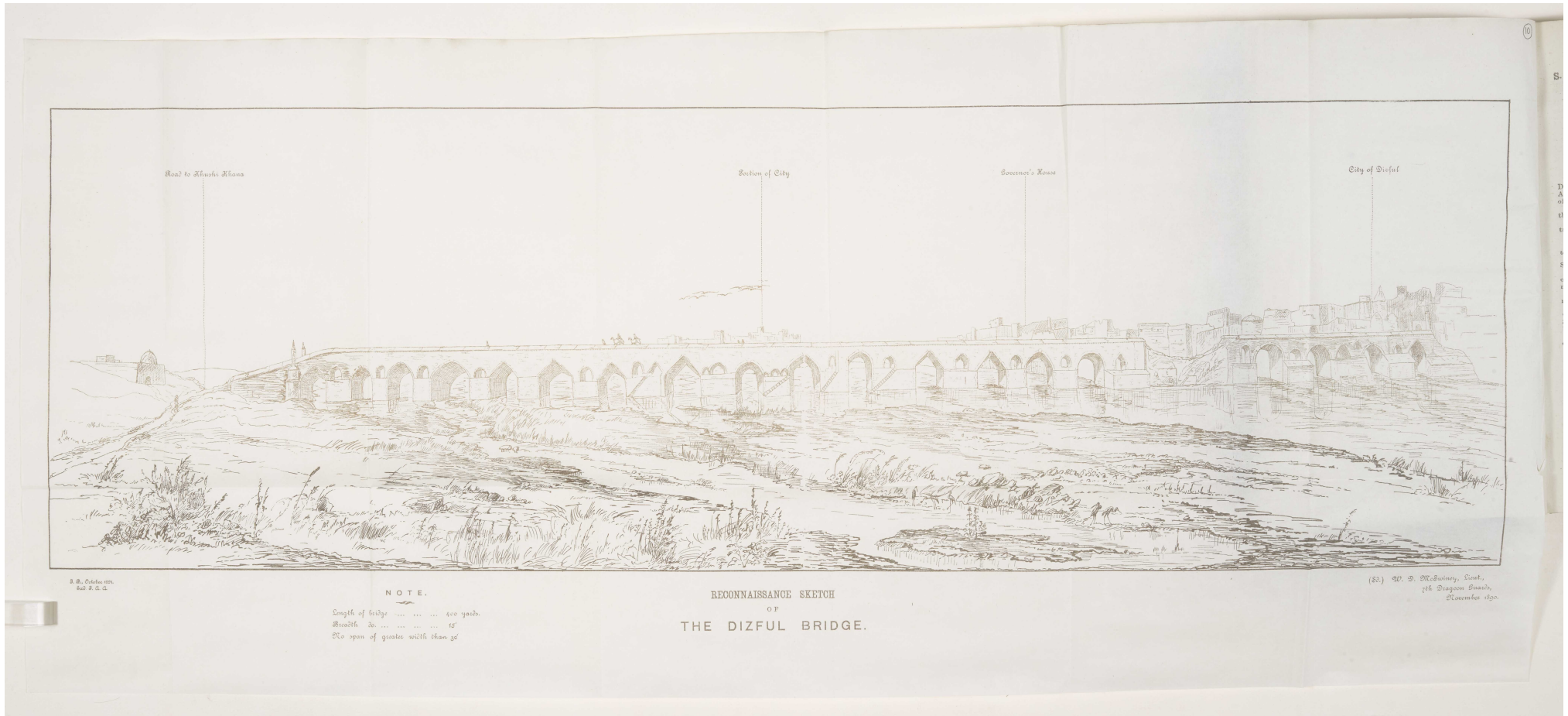
III.—Plan of Dizful.



'RECONNAISSANCE SKETCH OF THE DIZFUL BRIDGE' [10r] (1/2)



'RECONNAISSANCE SKETCH OF THE DIZFUL BRIDGE' [10v] (2/2)



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(11)

A SHORT REPORT
ON OUR RELATIONS WITH THE
ARABS, PERSIANS, AND BAKHTIARIS
DURING THE
RECONNAISSANCE IN SOUTH-WEST PERSIA.

PART I.

According to instructions received from the Quarter Master General's Department, Intelligence Branch, I left Bushire for the Karun on the 17th April 1891, accompanied by Assistant Surveyor Imam Sharif, *Khan Bahadur*, of the Survey Department of India.

On the 22nd of April we arrived off the Arab town of Mahommerah at the mouth of the Karun river.

The Persian Custom House official came on board at once, and was extremely anxious to find out the reason of my return.*

He wished to detain us, as he said it would not be safe to proceed up-country as several of the Arab tribes along the route to Shuster were in revolt; besides which, as the Governor of Arabistan had been deposed, the town of Shuster was in a very disturbed state, fighting going on.

I told him that I possessed letters from Teheran ordering all the Shah's officials to give me every assistance in my travels in the country, and if I did not obtain it, I should report the matter to Teheran.

This seemed to satisfy him, and he afterwards sent me an order allowing me to land my guns, &c., anywhere up the Karun river.

I did not show the Custom House official my letters from Teheran, as they were addressed by name to the late Governor of Arabistan, and signed by the Shah's Prime Minister, the Amin-ul-Sultan, whom *bazar* report said had just been divested of all power.

In case the above rumour should prove correct, I was anxious lest he should demand to see the letters.

I cannot but help thinking that the Amin-ul-Sultan must have already recalled the Nizam-ul-Sultan from Arabistan when he gave the British Legation the letters for me to him.

Persian man-of-war.

At Mahommerah we passed the only Persian man-of-war, the "*Persepolis*."

She is supposed to be officered by Germans, but on asking Baron Schenck, the German Minister at Teheran, when I was there, about them, he replied that he was sure that they were not Germans, and added that he believed they would be better known at the Russian Legation, as they might probably be Germans of the Russian Baltic provinces.

I heard by chance from one of the officers that a certain amount of pay had been guaranteed by the Russian Legation at Teheran for the Captain.

* I accompanied Major Bruce, 19th Bengal Lancers, up the Karun to Shuster and Dizful, thence across the Bakhtiari mountains to Isfahan in the autumn of 1890.

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I never met him, but I was told that his personal attendant was a Russian which makes me suppose that he is one *also*, as the composition of the officers of the "*Persepolis*" is best known apparently at the Russian Legation.

Although this vessel has only two guns, with which she could not do much damage except to an Arab dhow, still her presence at the mouth of the Karun may be of greater danger under her present officers than we suppose, for should we ever be required to send a military force to the Karun, and if, as I

Persepolis, a likely cause of temporary obstruction.

believe to be the case, the officers of the "*Persepolis*," although nominally in the Persian service, are Russian agents, *she will be sunk* across the Karun or in the channel over the "bar" of the Busrah river, thus causing delay which might mean serious loss to us if it be intended to occupy the Bakhtiari positions, as proposed by Major Sawyer, should Russia seize Teheran, which it is her avowed intention to do, on the death of the present Shah, who now, according to the Russian press of the 10th and 18th July, is dangerously ill.

On the 25th April we arrived off Ahwaz.

I called on the Persian Commandant to see what news there was about Shuster, and was again told that there still was considerable fighting going on.

I was glad, however, to learn from an Arab Shekh that some of the Bakhtiari Chiefs had not yet left their winter quarters near Shuster, as I was anxious to get guides and a couple of sowars either from the Ilkhani or from Isfendia Khan, who is still really the most powerful Chief among the Bakhtiaris.

Courtesy of Persian official. The Persian officer returned my call most promptly.

I also received calls from some Arab Shekhs in whose camps Major Bruce and I had stayed on our march from Mahomerah to Shuster last November.

As the Persian authorities have not yet given Messrs. Lynch's Agent permission to build himself a decent house, he still lives in a miserable bamboo Arab hut, which domicile does not tend to increase his importance as a British merchant with the people of the country.

Persian obstruction to British trade. Since Major Bruce and I were in Ahwaz in November 1890, there are now two good stone buildings—one occupied by the Commandant, and the other is used as a caravansarai.

The telegraph has been brought on from Wies, and a tramway laid from the point opposite to where the steam-boats anchor below the rapids to the point above, where the little stern wheeler lies which runs between Ahwaz and Shuster.

During our short stay in Ahwaz, Imam Sharif obtained information that there were two Russian officers surveying in the low range of hills near there.

Russian officers surveying. On the 28th of April we arrived in Shuster and put up at the house of Mr. Holland, the Agent of Messrs. Lynch Brothers of Baghdad, who gave us a hearty welcome.

The Persian bandmaster *alias* a Russian Artillery officer, whose presence in Shuster I reported, came to see me within a very short time of our arrival in the place.

Russian Artillery officer in disguise as a Persian bandmaster.

The Bakhtiari Chief, Amir Kuli Khan, brother to Isfendia Khan, sons of the late Ilkhani who was murdered by the Zul-i-Sultan by an order from the

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Shah, believed by these mountaineers to have been at the instigation of the Russian Ambassador at Teheran, sent word to ask whether I would receive him that evening, as he was leaving next morning for his summer quarters in the hills.

Cause of the animosity of the Bakhtiari to Russians.

I sent word back to say that I should be very pleased to see him, however late he liked to come.

He came at once on receiving my answer.

He expressed himself delighted to see us return to the Bakhtiari country, and hoped that our stay among them would be of some length this time.

Cordiality of the Bakhtiari Chief.

He promised to give us two sowars and letters to petty chiefs through whose villages we were likely to pass.

As he was going away, he told Imam Sharif he had decided to put off his journey to his summer quarters during our stay in Shuster, and, if there was anything we wanted, he was to be sure and let him know, as it was Isfendia Khan's wish that, whenever we visited this country, we were to be shown all hospitality possible by them.

The same evening I sent to the acting Governor, Mahdi Khan, who is quite a boy, asking whether he would give me an interview the next day, but he sent word back to say that he could not do so until the day after.

Delay of acting Governor of Shuster in giving me an interview.

(To give himself time, I suppose, to find out the reason of my return to Shuster.)

On the 29th of April I returned Amir Kuli Khan's call.

His reception was most cordial, everything being done to show his friendship for us.

After smoking the *Kaliun*, or pipe of peace, during which time he introduced several junior members of his party, I brought him to book about the two sowars he had promised the night before to give me.

He now asked whether I should consider one enough, as it would be more convenient for him.

I was not surprised at this, as I had heard that the Russian had been there early that morning with an order from the acting Governor for Amir Kuli Khan to go to the fort.

Russian Agent (?) at work.

Seeing something was evidently on his mind, we pressed him to tell us, which he did, saying how he had been sent for that morning to the fort, and had been asked what right he had to give us guides without consulting the acting Governor first.

He told them that as I had letters from Teheran, which he had seen, ordering all Governors to assist me, he had only fulfilled the command of his Imperial master.

After making this reply, he told us he had been allowed to come away.

As he evidently had been a good deal worried, I told him I should be satisfied with one sowar, but that should any accident happen, he would be held responsible.

I could clearly see that considerable pressure had been brought to bear on him, which I attributed to the presence of the Russian living in the fort as a Persian bandmaster, and who, Amir Kuli Khan said, had told the acting Governor that, if he allowed me to proceed, he would probably get himself into disgrace at Teheran.

Before terminating my interview with the Bakhtiari Chief, I made him show me the man he was going to send with me, and give me the letters to the petty chiefs through whose districts we were likely to pass.

On the 30th of April there was some more fighting in the town, as a *serbaz* or soldier stabbed a Shusteri in the bazar, and he had been immediately attacked by the inhabitants.

As soon as the news reached the fort, the soldiers came pouring into the town without any formation. Firing all over the town now became general; for a few minutes the inhabitants seemed to be getting decidedly the worst of it, and retired to their houses until word was passed to the four *mahals* or quarters to assemble in force in the bazar square.

In about half an hour the Shusteris could be seen coming from all directions in considerable numbers to the square, armed principally with long sticks heavily loaded at one end, with which they are very handy. A few were armed with Martini rifles of American make.

The soldiers made a short stand, but as they had evidently no one to lead them, they broke on finding that their retreat to the fort was likely to be cut off, and ran as hard as they could, throwing their arms away.

In my letter to the Assistant Quarter Master General, Intelligence Branch, of the 1st of May 1891, I gave the loss of Shusteris 4 killed, 13 wounded; Persian troops 4 severely wounded; but from information obtained later, I estimate the loss on either side to have been considerably greater, several of the soldiers being killed.

During the fighting several of the leading inhabitants came to assure us that, as long as they were masters of the town, we would be in perfect safety.

The same afternoon, when riding to the fort to see the acting Governor, the people salaamed us, whereas several times last November we were stoned.

My interview with the acting Governor was unsatisfactory, as the Russian was present the whole time.

A great effort was made to prevent my going to Dizful.

In the evening I received the attached letter (*vide* page 6) from the Russian asking for sponges, &c., with which to dress the wounds of his men.

I sent him what I had.

Early in the morning of the 1st of May Amir Kuli Khan came to say farewell and to tell me that he had been detained the whole of the previous day in the fort during the fighting until after my visit, when he had been suddenly told he might go.

On the 2nd of May we crossed the Karun and proceeded to Dizful.

On arrival there on the 3rd of May I went straight to the house of the head Saiad who had entertained Major Bruce and myself last year.

He seemed surprised, but I reminded him of a promise he gave to be of service to us at any time, and added that I now came to take him at his word, especially as I knew him to be the most influential and powerful man in Dizful.

This idea of his importance seemed to please him, and he immediately called for a *Kaliun* pipe, at the same time giving orders for a room to be got ready for us, and gave instructions to supply us with whatever we required.

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Should we ever occupy Arabistan, this Saiad Hussen* of Dizful might prove of great use in assisting to bring in supplies and in obtaining information, as he is not only well known to the people of Dizful, but also to the

Possibility of Saiad Hussen proving of use to us.

Bakhtiaris.

In one village, near where we encamped in the Bakhtiari hills, the inhabitants were nearly all Saiads, and appeared to resent our coming; but hearing that we had been the guests of one of their chiefs (Saiads), they soon brought in supplies, &c.

The bazar in Dizful is well stocked with Russian marked goods, which shows that already commercially as well as politically the agents of the Czar are gradually working their way down to the Gulf.

Saiad Hussen asked me if it was true that the Russians prevented the English from building railways in Persia, and added that he could not understand it, as from what he had seen when at Bombay and Hyderabad, Deccan, where he had stayed with a brother of his who was a merchant there, he had believed the English to be the most powerful people of the world.

Why do you not send your agents here as Russia does?

Friendly attitude of inhabitants at Dizful.

Several of the principal merchants came and salaamed to me during my stay in Dizful with Saiad Hussen.

As the friendly relations established by Sir Henry Layard years ago between us and the Bakhtiari Chiefs, and revived again about a year since by Major Sawyer's few months' stay among them, are now probably at their best, they might with certain roads which would be of strategical value to us, to say nothing of a shorter and easier trade route to Isfahan from the Gulf than that *via* Shiraz.

Friendly relations with the Chiefs of the Bakhtiaris.

Road through Bakhtiari country (*via* Karun) shortest land route from Gulf to Isfahan.

I fully concur with the proposal already made regarding the advisability of sending a medical officer to the Bakhtiari people, who would be of professional use to them and of great political value to us, as during my last visit I was constantly asked by the Bakhtiaris whether I had a *hakim* with me.

Advisability of sending a medical officer.

I hope to send in detailed road reports as soon as completed.

Imam Sharif, Khan Bahadur, of the Survey Department, rendered me great assistance in obtaining information owing to his great tact and thorough knowledge of the country, its people, and their customs.

Assistance rendered by Imam Sharif, Khan Bahadur.

The following information of the new Governor of Arabistan and the Bakhtiari country was obtained before leaving Shuster. He had not, however, arrived before I left.

He is said to be the son of the late Haji Shahab-ul-Mulk, who was Governor of various provinces for many years, and who was generally known under that name, given to him in the year 1856, when he brought the tidings of the capture of Herat by the Persians to Shah Muhammad.

* He is said to be the son of the Dizful merchant who showed Sir Henry Layard hospitality in 1842.

He belongs to the wandering tribe of Shahewan (or King's friends), which was formed about 1600 A. D. by Shah Abbas the Great as a defence against the Kuzzel Washt tribes, which were causing him great trouble. At one time it numbered 100,000 families (?), and was noted for its loyalty to the Saffavian dynasty.

The translation of Russian Agent's (?) letter to me at Shuster referred to on page 4.

DEAR SIR,

I deeply regret not having been able to visit you to-day, because I was unable to leave my wounded, who are still in a critical state.

With regard to your crossing to the other bank of the "river," I have already informed the General about it, and he is ready to offer you every assistance.

Please inform me the day of your crossing.

I beg urgently to request from Mr. Holland a piece of sponge (if he has such a thing) for washing the wounds of the sick. This will be conferring a great favour on me.

Perhaps to-morrow I shall have the opportunity of visiting you.

Please give my kind regards to all the "Feringees" who are with you.

I am,

Yours very sincerely and faithfully,

(Sd.) K. DEFUR (ALI ISLAM).

W. D. McSWINEY, *Lieutenant,*

7th Dragoon Guards.

Free translation.

SHUSTER; }

The 1st May 1891. }

'RECONNAISSANCE SKETCH OF THE KUSHI KHANA' [14r] (1/2)



'RECONNAISSANCE SKETCH OF THE KUSHI KHANA' [14v] (2/2)



J. E., October 1891.
M-2 P. C. D.

RECONNAISSANCE SKETCH

(82.) W. D. McDiarmid, Lieut.
7th Dragoon Guards.

OF
THE KHUSHI KHANA

on the right bank of the Ab-i-Diz, which commands the town of Dizful.

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PART II.

ROAD REPORTS.

From the three accompanying Road Reports of the routes leading from South-West Persia into the Bakhtiari mountains, it will be seen that the one from Dizful to Pul-i-Kul on the Ab-i-Diz will have to be made and cleared nearly the whole distance from Duma Kail (one stage really from Dizful) to Pul-i-Kul, and the bridges there over the Ab-i-Diz repaired before it could be utilized as a regular mule route, although even now it is passable but only in single file and with difficulty in places as stated in the detailed account.

The route from Kala Bazuft to Shuster, *viâ* Mori and Susan, would certainly require to be made nearly the whole distance from Mori to Mushgari; thence the work would not be so heavy, as the track passes over long bits of level ground across several large plains, such as Andaka, Lali, and Akeili; the last bit of hard work would be in the Tungi of Kelah-i-Rustam through which the Karun river passes out of the hills on to the plain of Akeili, the road then is good to Shuster or Dizful.

As to the route from Dizful to Kala Bazuft *viâ* Duma Kail and Ser-i-dasht, Chulbar, and Chilau, it is decidedly the best one leading into the Bakhtiari mountains from South-West Persia.

A Pioneer battalion would not have a very difficult task in turning this one into a first-rate road for all arms from the Persian Gulf to Isfahan as practically there is very little more to be done than clearing stones and altering a few gradients.

This route is the one usually taken by the Bakhtiari Chiefs in preference to that by Mal-i-Mir when going to and from their summer and winter quarters.

To the railway engineer as far at least as the foot of the Kuh-i-Monar or Haud-i-Nau, there is absolutely no difficulty, thence to Isfahan *viâ* Kala Bazuft, Ali Kuh to Kahvarukt, about 60 miles of difficult country, would have to be negotiated in the way of tunnels or gradients.

The following stages of places on the Shuster Chilau Isfahan route were given to me by a Bakhtiari Chief, as the usual stages of their mounted orderlies:—

Shuster.	Morwaz.
Gotwand.	Ali Kuh.
Shimbar.	Kavrerukt.
Abenori.	Isfahan.

These however are very long stages.

From the accompanying plan of Dizful it will be seen that the town is situated entirely on the left bank of the river Ab-i-Diz.

It is, however, commanded by the right *bank*, on which about 600 yards from the edge stands the Governor's pleasure house or Kushi-khana (see sketch).

The site on which this building stands commands the country for many miles round.

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This rise of the ground serves as a natural *tete du pont* to the ancient stone bridge, (see sketch, frontispiece), which is 400 yards long and consists of 22 arches each of 30 feet span, width of roadway being 15 feet, against any army marching on the town from the north-west or Burujird. This bridge crosses the Ab-i-Diz from the south-west corner of the town at a south-westerly bend of the river.

The Kushi-khana could be easily converted into a temporary fort for a small body of cavalry dashing up from Mahommerah to seize Dizful,* which could be easily done in seven possibly in *less* days, as Major Bruce, I and party did Mahommerah to Shuster in six and from Shuster to Dizful in two, and these marches were performed by *donkey* caravan.

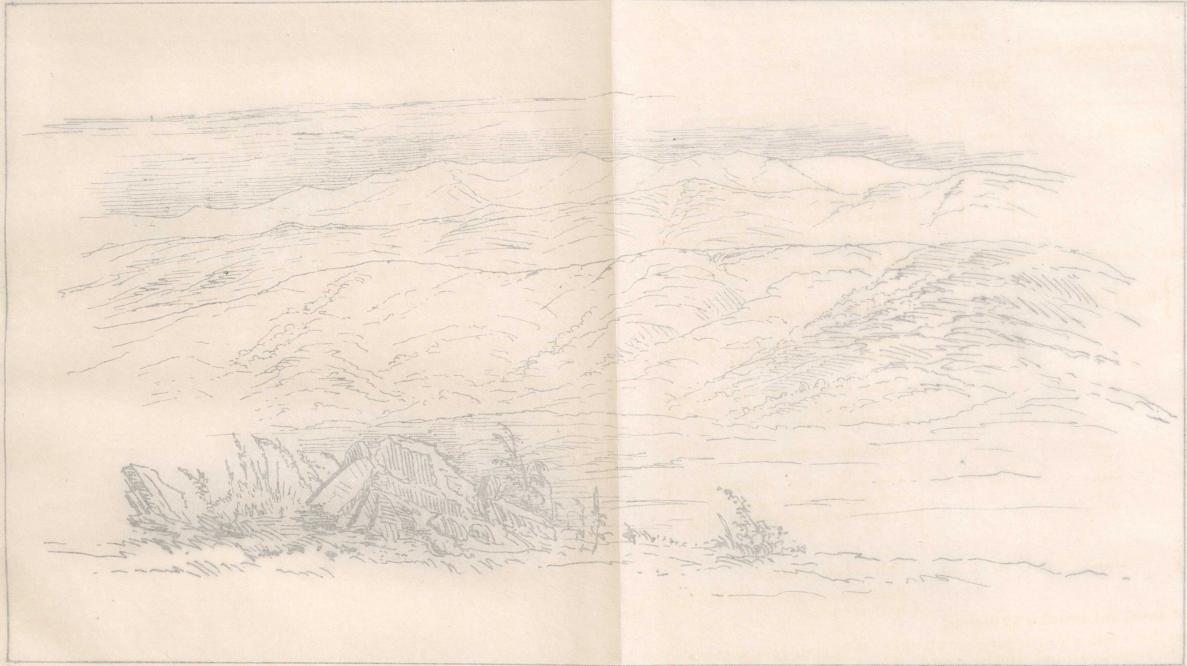
In these parts the large Arabian donkey is considered to be nearly as good a transport animal as the mule, and there is a good supply of them. They certainly require less care and food than mules.

If an Indian force were ever to be sent to the Karun for this purpose, very little in the way of supplies would be necessary to be carried beyond ammunition, for the actual march to seize Dizful; as supplies would be easily obtainable both there and at Shuster in sufficient quantity for even a very considerable force, provided that such a force as contemplated above appeared in the country with the very first rumours that hostilities had broken out.

And in the event of complications arising between England and Russia, I might suggest that certain officers acquainted with the ground might be previously told off, so as to proceed with all despatch to the Bakhtiari country in order to collect supplies and organize the Bakhtiaris with a view to holding the impregnable *tete du pont* to the Persian Gulf, so ably described by Major Sawyer in his recent reconnaissance, until troops could arrive from India.

* In connection with this idea, see note in Road Report I, page 3, on the commanding position of the Kilah Shahib, distant from Dizful 12 miles, also on the Ab-i-Diz.

'DISTANT VIEW OF THE SNOW COVERED BAKHTIARI MOUNTAINS' [16r] (1/2)



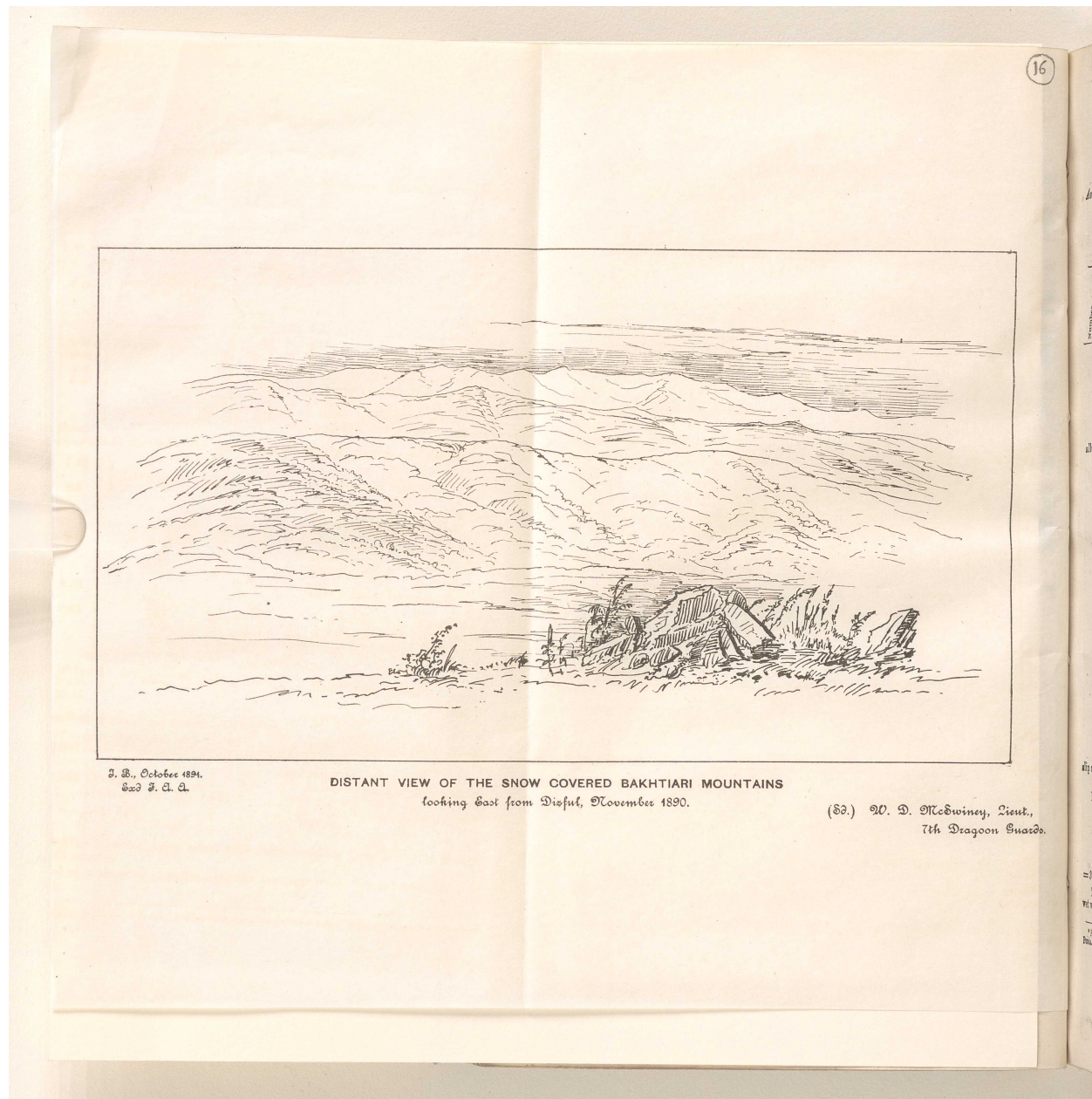
DISTANT VIEW OF THE SNOW COVERED BAKHTIARI MOUNTAINS

Sketch by Major G. S. ...

(62) ...

Looking East from ...

'DISTANT VIEW OF THE SNOW COVERED BAKHTIARI MOUNTAINS' [16v] (2/2)



'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [17r] (38/90)

17

Route No. 1.

FROM DIZFUL TO PUL-I-KUL.

Authority—Lieutenant W. D. McSwiney, 7th Dragoon Guards, and Imam Sharif, Khan Bahadur.

Weather, fine; temperature at noon, 97° Fahrenheit.

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	
I	6th May 1891. A.M. 6-40	DIZFUL*	...	...	...
					Leave Dizful. Bearing of general direction of route is north-east. Road is about 30 yards broad, good and level, across an extensive alluvial plain. On either side of the road at this time of year are fields of standing corn and barley.
	7-40	} RIVER DIZ	...	...	...
	8-5				
	8-15	.....	...	...	Road becomes very pebbly and passes through a double row of Kanauts (wells).
	8-35	.....	...	...	More Kanauts are passed.
	9-35	.....	...	...	Dry pebbly bed of a stream is crossed a few yards before the road enters a low range of rocky hills.
	10 to 10-30	} .....	...	...	...
	10-45				
					Halt to take bearings. Road descends nearly 100 feet to a small stream.

The gradient of ascent and descent is 10 degrees.

I should suggest that a path with a more easy gradient should be made here, as animals slip a good deal on the conglomerate rock with its present gradient.

II	11-30	TABIRAN	...	8	8	Leave the road and descend to encamp near a stream on our right on an "ilyat" camping-ground called <i>Tabiran</i> .
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Note.—After deducting halts, actual time taken marching from Dizful to Tabiran = 3 hours, 55 minutes.

The road up to the point where it enters the low hills would become very heavy in wet weather.

* For description of Dizful town, see "Persian Gazetteer," and Colonel Bell's "Military Report on South-west Persia."

'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [17v] (39/90)

ROUTE No. 1—*contd.*

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	

After entering the hills, ground becomes very broken on right and left of road, being cut up by deep ravines, which in some cases have perpendicular sides from 200 to 400 feet in height.

Only infantry and mountain batteries could manoeuvre over this ground, but cavalry scouts if under an officer with a knowledge of the nature of the country might be of great service.

There is no village at Tabiran as it is only an "ilyat" stage. Supplies, none. Water, good supply from stream at the present time of year, but reported to become scarce during months of July, August, and September.

Fuel.—Scarce, only a few Konar bushes, camel-thorn, and wild almond trees.

Forage.—Grazing is good until June.

7th May 1891. A.M. 6-20	TABIRAN .....	...	...	Weather fine. Leave camping-ground near bank of stream and ascend nearly 100 feet again to road. Bearing of general direction of route is north by east.
6-50	.....	...	...	Ground on either side (right and left) of road very broken by deep ravines. Road now passes close to the edge of precipice on right hand where it would require to be widened.
7 7-25	} .....	...	...	Halt to take bearings.
7-30	.....	...	...	Road passes through a cleft or fissure in a low ridge of rock.
7-50	.....	...	...	Descend a few steps cut in conglomerate rock.

A ramp should be made here as the steps are too deep for heavily laden animals stepping down without considerable strain to their forelegs.

A yard further on and the road passes the edge of a precipice on the left hand.

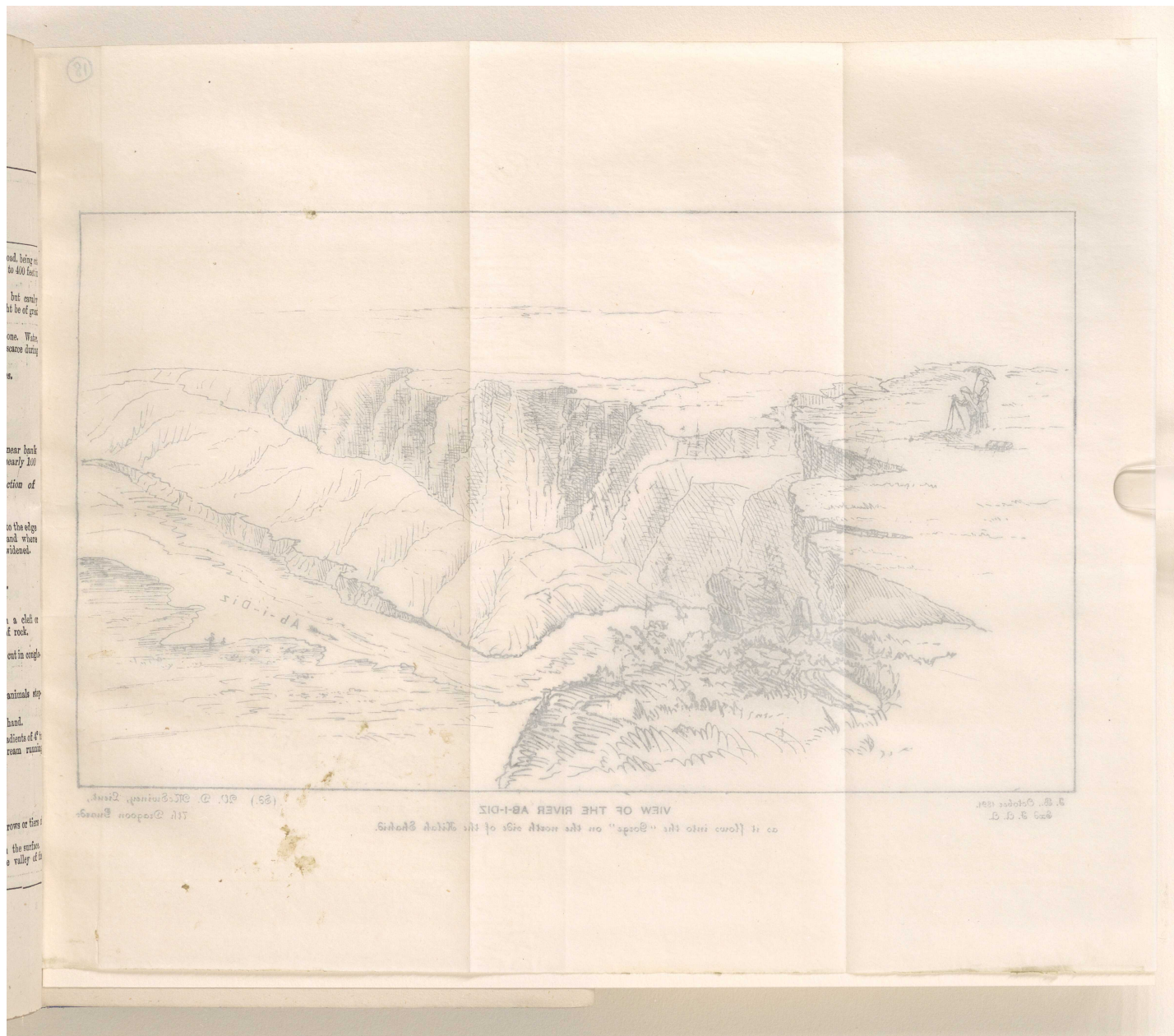
8-15	.....	...	...	Descend by easy gradients of 4° to 5° and cross a stream running south-west.
8-45 9-15	} .....	...	...	Halt for bearings.

Notwithstanding broken nature of country, which consists of rows and rows or tiers of hummocky hills, there is considerable cultivation.

The soil is of a rich red colour with a quantity of slate appearing on the surface.

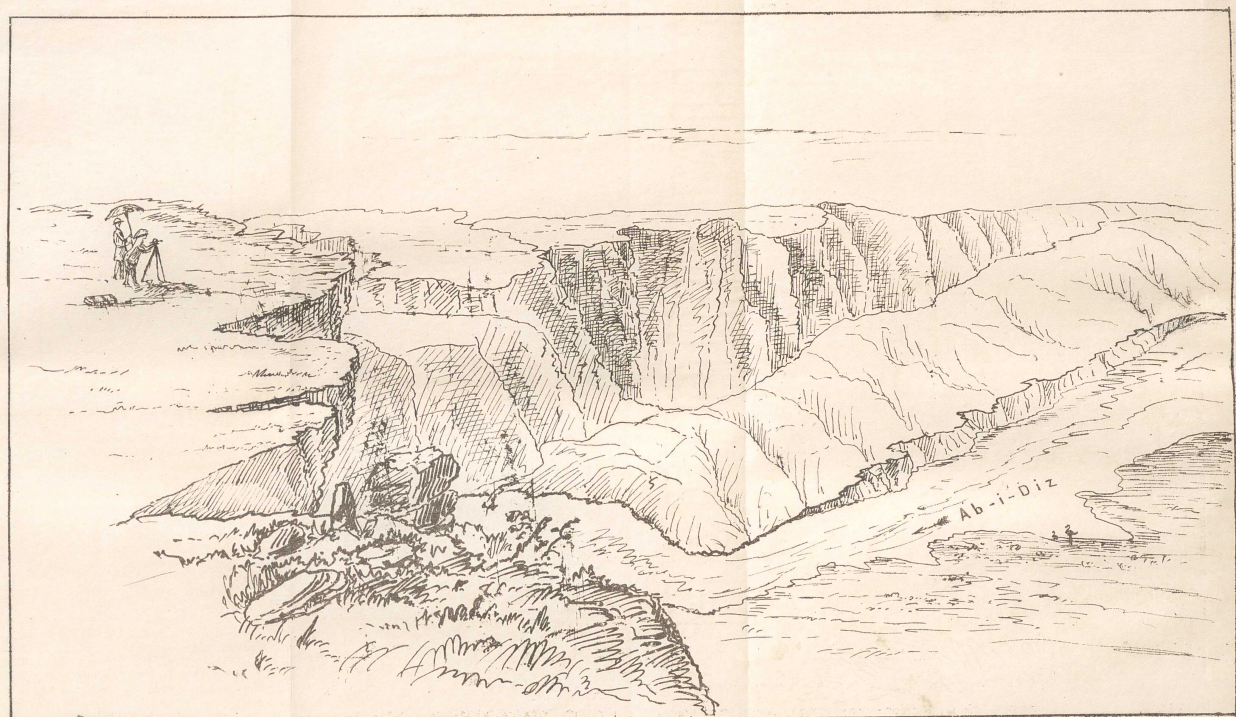
The ground now falls towards the north-west as we are approaching the valley of the Ab-i-Diz, distant some 6 or 7 miles.

'VIEW OF THE RIVER AB-I-DIZ' [18r] (1/2)



'VIEW OF THE RIVER AB-I-DIZ' [18v] (2/2)

18



J. B., October 1891.
Exd J. A. G.

VIEW OF THE RIVER AB-I-DIZ
as it flows into the "Gorge" on the north side of the Jilalah Shakhid.

(Sc.) W. D. McSwiney, Lieut.,
7th Dragoon Squad.

'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [19r] (42/90)

19

3

ROUTE No. 1--*contd.*

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.	
			Inter-mediate.	Total.		
	9-45	.....	...	...	Halt for bearings.
	10-10	.....	...	...
	10-30	.....	...	...	Cross a stream running north-west; water good.
	11-55	.....	...	...	For nearly ten minutes road passes over ground, the surface of which consists of slate or flint stone.
	12-5	.....	...	...	Halt for bearings.
	12-30	.....	...	...
III	12-40	DUMA KAIL	...	11½	19½	Several "ilyat" encampments are seen to our left front, and we encamp near one close to a stream in the deep undulating plain of Duma Kail which is considerably cut up by ravines.

NOTE.—After deducting halts, actual time taken marching from Tabiran to Duma Kail 4 hours, 35 minutes.

Only mountain batteries and infantry can manoeuvre here, except for scouting, ground too broken for cavalry action.

About 7 miles distant to the north-west is the Kilah Ab-i-Diz or better known among the natives by the name of Kilah Shahid.

It is a natural stronghold, being a plateau about 4 miles square on the summit of a hill with perpendicular sides of 200 feet.

The highest part of the hill is 2,560'.—As there are no higher hills nearer than a radius of from 8 to 10 miles, it cannot be commanded by Artillery fire. From the summit a clear view is obtained of the town of Dizful, distant some 11 or 12 miles.

Water is obtainable from several springs. When we visited the Kilah Shahid in June the water from one of these springs was delightfully cool.

Grazing is said to be good up to the end of April.

Fuel.—There is none.

The Ab-i-Diz rushes past the northern side through a deep gorge before it emerges on the plains of Arabistan.

The subjoined sketches are rough ones taken from the top of the Kilah; No. 1 looking north, just above the river, and No. 2 looking east over the neighbouring country towards the Kuh-i-Sikeria.

The only occupant at the time we visited the place was an old follower of the Ilkhani who was with difficulty persuaded to allow us to come up.

It is said to be the strongest place the Ilkhani has. The summit is only reached by a zigzag path partly cut in the face of the cliff and partly built out on stakes driven into the face of the hill with brushwood laid on them, which can easily be destroyed by being thrown down or set fire to, thus cutting off all access to the summit.

Supplies in winter months could be obtainable in considerable quantities as the plain of Duma Kail is a favourite winter quarter of the Bakhtians; but in summer would be scarce as only a few ilyats remain encamped here permanently.

Water.—During months of June, July, August, and September reported to become scarce where we encamped, but the river Ab-i-Diz is distant 7 miles.

Fuel.—Scarce, only the "Konar" camel-thorn bushes and wild almond trees.

Forage.—Excellent grazing up to the end of May.

'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [19v] (43/90)

ROUTE No. 1—contd.

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	
III	8th May 1891. A.M. 6-35	DUMA KAIL .....	...	...	Weather. Heavy rain during the night. Leave camping-ground. Bearing of general direction to spur of the Sikeria mountain is north-east.

From Duma Kail a guide from the "ilyats" encamped here is absolutely necessary as the road or track now becomes a mere goat path, often becoming invisible where it passes through long grass and patches of cultivation with corn or barley just ready to be cut. Ground very much broken up by ravines.

7-35	Nature of soil is a rich red clay. Surface of ground now traversed is of slate stone rock, in which there are a few deep steps which should be increased in number or a ramp made.
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7-45	Track leads over a spur of the Sikeria mountain at a height of 2,600 feet, and descends into the head of a small valley and across a stream; and thence ascending
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again up another spur becomes very stony and rough.

IV	8-30	KHAN-I-SAFID	Pitch our camp as it is raining in torrents. The place where we encamp is called Khan-i-Safid by our local guide. (Not shown on map.)
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There are no encampments of "ilyats" near us.

Supplies.—None.

Water.—Good and plentiful at this time of year; June, July, August, and September scarce.

Forage.—At this time of year the grazing is excellent, although the ground traversed is rocky, stony, and broken.

Note.—On return journey from Pul-i-Kul we did from Nurabad to Duma Kail in one stage.

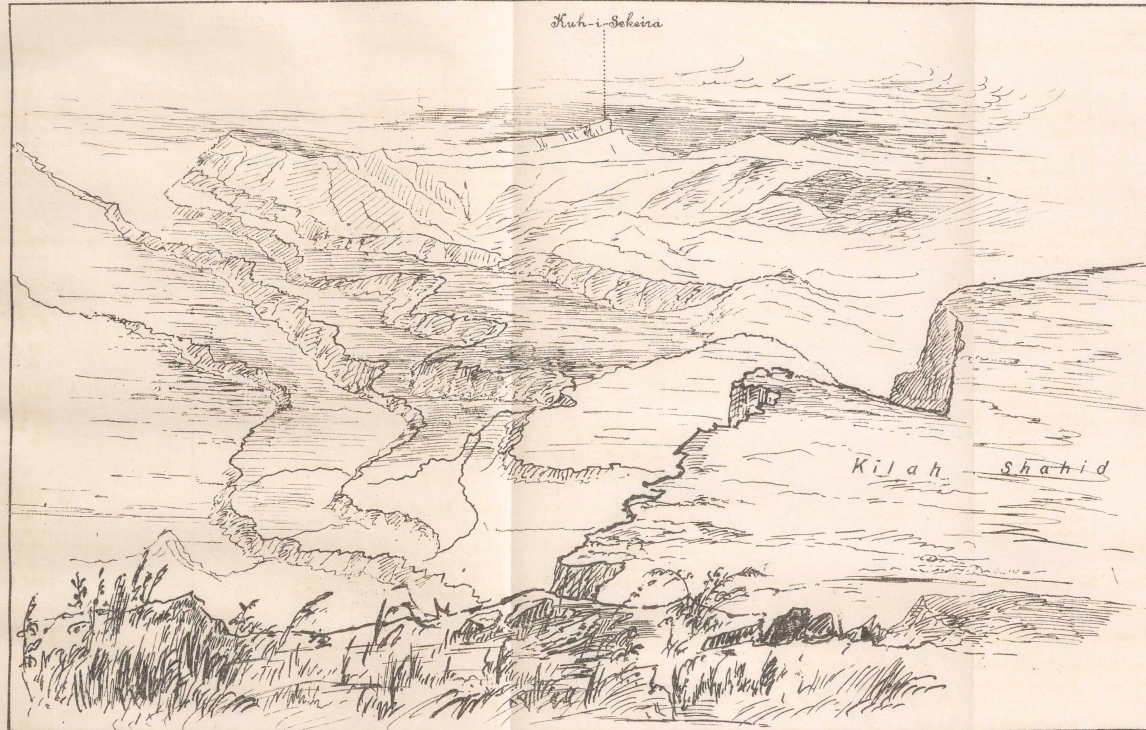
Note.—Time taken from Duma Kail to Khan-i-Safid was 2 hours and 5 minutes.

9th May 1891. A.M. 7-25	KHAN-I-SAFID	...	...	...	Weather very showery. Leave camping-ground.
8-25	NORTH-EAST SPUR OF SIKERIA MOUNTAIN.	...	...	...	Pass over the north-east spur of the Sikeria mountain, the bearing of general direction is easterly across the valley between the two mountain ranges of Sikeria and Lungar.

The descent into the valley is difficult as it is over large boulders of conglomerate rock and loose stones.

'VIEW OF THE COUNTRY OVER THE PLAN OF DUMAKAIL' [20r] (1/2)

20

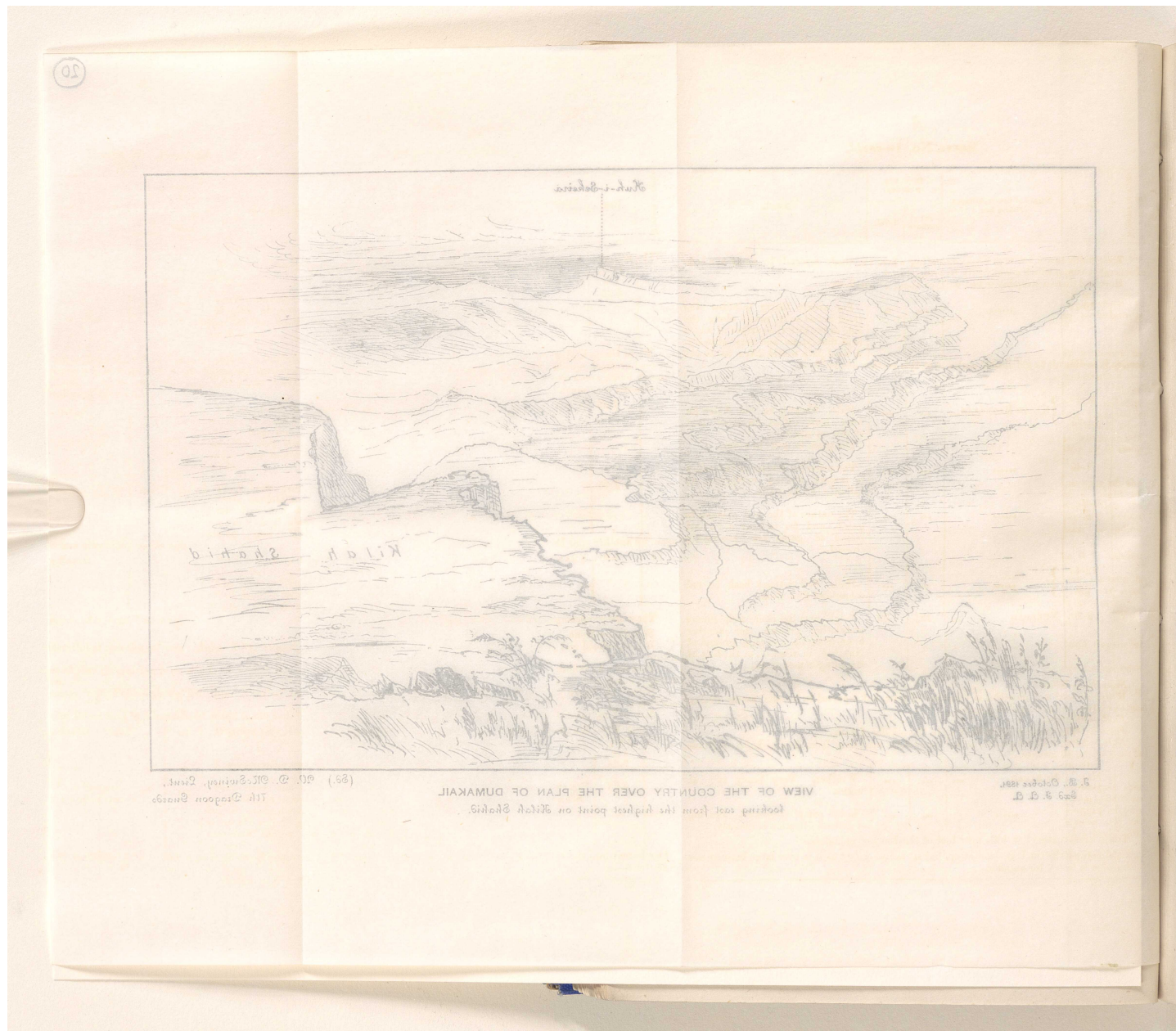


J. B., October 1891.
S. 2. 3. a. a.

VIEW OF THE COUNTRY OVER THE PLAN OF DUMAKAIL
looking east from the highest point on Kilah Shahid.

(Sd.) W. D. McSwiney, Lieut.,
7th Dragoon Guards

'VIEW OF THE COUNTRY OVER THE PLAN OF DUMAKAIL' [20v] (2/2)



'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [21r] (46/90)

21

5

ROUTE No. 1—*contd.*

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.	
			Inter-mediate.	Total.		
	A. M. 10-10	.....	...	...	For nearly thirty minutes the track is bad as it passes along the side of the hill, the surface of which is of flint stone and very slippery. A level path would have to be cut here, as it is difficult to get loaded mules over this portion of the track.
	10-45	} KILAH BARNÉSAR...	...	...	Halt. There is an old Kilah (or fort) here, called Barnésar (not shown on map). The place is quite in ruins.
	11-25					
	11-45	.....	...	...	The principal stream of the valley is crossed flowing north-west to fall into the Ab-i-Diz.
	P. M. 12	.....	...	...	The nature of the soil changes to gatch, and for an hour and a half ridges of gatch are constantly crossed.
	12-45	} .....	...	...	Halt. Soil changes back to red colour and flint stone.
	1-30					
V	2-30	NURABAD	...	12½	32	Track now lies over rich grassy undulating ground for another hour, when the camping ground of Nurabad is reached, at the foot of the Lungar mountain.

Supplies.—None.

Water.—Good and plentiful at this time of year, but reported to become scarce during months of July, August, and September.

Fuel.—Plentiful.

Forage.—The grazing is excellent up to the middle of June.

Note.—After deducting halts, actual time taken marching from Khan-i-Safid to Nurabad = 5 hours, 40 minutes.

V	10th May 1891. A.M. 7-35	NURABAD	...	...	...	Weather. Very heavy rain at night.
		.....	...	...	...	Leave camping-ground. Bearing of general direction is easterly.

Track crosses some low hills near foot of the Lungar mountain.

Gradients of the track are not steep, but it is bad going as it is over large loose stones which makes it heavy for animals.

'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [21v] (47/90)

ROUTE No. 1—*contd.*

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	
	A.M. 7-50	.....	...	...	Pass over hillside of slippery sandstone rock; several mules come to grief here.
	8 9	} .....	...	...	Halt for bearings.
	9-15	.....	...	...	Track becomes fairly good. Cross a landslip where portion of track had been carried away the night before; this, however, could be easily repaired.
	10	.....	...	...	Descend to a river bed down a steep spur of a hill of "gatch," slope of which is 15°.
Track goes along the river bed, which is 150 to 200 yards broad with only 2 feet of water in the centre (height 2,900').					
	10-50 11-5	} .....	...	...	Halt for bearings.
	12	.....	...	...	Track leaves river bed and ascends up side of hill by steep gradients of 8° to 12° to 4,300'.
	P.M. 1	.....	...	...	Descend into a valley where the remains of numerous "ilyat" camps are found and encamp; this spot is called <i>Pahra</i> , height 4,250'.
VI	1-30	PAHRA, 4,250' ...	9	41	No village or "ilyat" encampment was passed during the day or even another human being other than our own party seen.

Country very mountainous, woody, and very stony.

The whole distance from Nurabad to Pahra would require to be considerably improved by a Pioneer Battalion before any large transport could be sent up, as with only ten mules we had great difficulty in getting them over the difficult portion of the track.

Supplies.—None.

Water.—Good supply from small stream near camping-ground.

Fuel.—Plentiful, mostly oak trees.

Forage.—The grazing is excellent.

Note.—The great length of time taken in this day's march in proportion to the actual distance is owing to the difficult ground traversed.

Note.—After deducting halts, actual time taken from Nurabad to Pahra 4 hours, 40 minutes.

Ground only fit for infantry and mule batteries.

'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [22r] (48/90)

22

7

ROUTE No. 1—contd.

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	
	11th May 1891. A.M. 6-45	PAHRA .....	...	...	Weather. Heavy showers at intervals. Leave camping-ground.
	7-25	.....	...	...	Bearing of general direction of route is northerly. Track very stony over some small hills and down a steep pass or dry watercourse 35° slope into a deep ravine, then ascends up the side of the Salun mountain, also up a dry
					watercourse 15° slope, but more difficult as the boulders are larger, several times we had to build up ramps to get our animals over these huge masses of rock, one mule had rather a bad fall as in trying to get over one of these boulders it fell backwards.
	9-30	.....	...	...	After leaving the top of the watercourse we continue up a zigzag path the general gradient of which is about 5°, passing at the same time through a thick forest of stunted oaks, the soil here being of a rich, red clay.
	10-30	.....	...	...	The forest now ceases, the ascent becomes very steep again; having a slope of about 20°. Ground surface is of grey sandstone rock, which is very slippery.
	11-30 P.M. 12-45	} SALUN, 7,700'	5	46	Several of our mules here come to grief, and the ground is so difficult that we ourselves have to go on all fours. Halt on crest of hill for bearings. Temperature here was low, being only 48° Fahrenheit. There was a considerable amount of snow still lying about.
	2	.....	...	...	At 2 P.M. the first water is met with, at a spring on the left hand of the track, since leaving last stage (Pahra). Surface of the ground is of white sandstone rock, very difficult to walk as well as ride over.

'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [22v] (49/90)

ROUTE No. 1—*contd.*

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	
VII	2-15	} CHELLUN	...	...	Halt for bearings.
	2-30				
	3-15					7	53

and descends to the head of a narrow valley, thickly wooded with oak, by a zigzag path, gradients of which are 5° to 6°, and then follows the general course of a stream flowing easterly, which is crossed and recrossed several times until the "ilyat" camping-ground of Chellun is reached.

Note.—After deducting halts actual time taken marching from Pahra to Chellun = 4 hours, 15 minutes.

Supplies.—None.

Water.—Plentiful and good from stream.

Fuel.—Plenty of oak and other trees.

Forage.—The grazing is excellent:

12th May 1891. A.M. 7-45	CHELLUN	...	...	...	Weather. Very showery with hail.
	.....	...	...	...	Leave camping-ground. Bearing of general direction of route is easterly.

Track stony and crosses and recrosses stream four times during half hour. Depth of stream 18 inches to 2½ feet.

8-15	.....	...	...	Track lies along a valley of about ¾ mile in breadth. A footpath is passed, direction of which bears 125°.
9	.....	...	...	Bearing of general direction now turns north along dry bed of a stream.
9-40	.....	...	...	Pass along a ravine for twenty minutes; track difficult over stony ground.
10	}	Track now reaches top of hill.
11-30					Halt for bearings. Descend into a deep narrow valley.

Slope of hill 25°; the gradients of track are also steep, about 8°. Descent difficult as the surface of the ground consists of grey sandstone rock, which is very slippery.

P.M. 12	.....	...	...	...	A stream is crossed 3,450' in middle of valley. Track ascends the other side of valley, very bad.
1 1-15	}	.....	...	...	Halt for bearings.

'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [23r] (50/90)

23

9

ROUTE No. 1—contd.

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	
VIII	A.M. 2	NUKDAR ...	15	68	Track bad along very precipitous slopes, descends again slightly and we encamp on a small open spot near a spring which is called Nukdar on an "ilyat" encamping-ground.
<p><i>Note.</i>—After deducting halts actual time taken marching from Chellun to Nukdar = 4 hours, 15 minutes.</p> <p><i>Supplies.</i>—None.</p> <p><i>Water.</i>—Good from several springs.</p> <p><i>Fuel.</i>—Good supply. Oak and other trees.</p> <p><i>Forage.</i>—The grazing is not very good as the ground is very rocky.</p>					
	13th May 1891. A.M. 7-40	NUKDAR ...	...	...	Weather. Very heavy rain at night with hail. Temperature. At noon 58° Fahrenheit. Leave camping-ground.
	8-15	.....	...	...	Bearing of general direction of route is northerly.
	8-45	}	.....	...	Track is very rough across several deep ravines.
	9-15				
	9-30	.....	...	...	Halt for bearings. Track passes along the precipitous sides of numerous detached hills.
<p>This portion of the track would require considerable building up or cutting away so as to make a roadway, as at present in parts men, much less loaded mules, can scarcely get a foot-hold on the steep hillsides where the grey sandstone rock comes to the surface.</p> <p>One mule slipped and rolled nearly two hundred feet and was with difficulty recovered.</p>					
	9-30	.....	...	...	A few "ilyat" tribes are seen on the crest of the hills on our right, the first human beings we had seen since leaving Dumar Kail.
<p>We called to them, but they would not come down. We learned afterwards that they belonged to a lawless tribe of Bakhtiari Lurs.</p>					
IX	11-35	PUL-I-KUL AB-I-DIZ.	5	73	We descend by steep gradients of 9° to the bank of the Ab-i-Diz, where we encamp about ½ mile from two broken bridges.

0

'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [23v] (51/90)

10

ROUTE No. 1—*concl'd.*

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	

Supplies.—None.

Water.—Plentiful from the River Ab-i-Diz.

Fuel.—Very scarce.

Forage.—Grazing at this time of year (June) very poor.

About 2 companies only of Infantry with 2 mountain guns could encamp near river bank. Best camping-ground for a larger force would be near the route about half way from Nukdar.

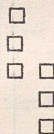
After resting a few hours after our arrival on the bank of the Ab-i-Diz, which here is 100 yards broad and very rapid, we proceed to see the bridges.

A few minutes' walk brings us into the gorge through which the river Ab-i-Diz rushes at the rate of about 10 miles an hour.

The path lies along the edge of the water on slippery slate stone rock sometimes scarcely broad enough for a man to get a foot-hold; a good roadway could be easily made by cutting away the slate stone rock, as has been done in the Tungi Baba Ahmed on the route from Dizful to Kala Bazuft.

The "ilyats" told us that yearly they lose a considerable number of their animals along this route when going to and from their summer quarters.

The first bridge or rather ruins of one of six piers which are apparently in good condition are placed thus—



two of the piers in the centre overlapping evidently to offer more strength against the rapid current.

The second and apparently later built bridge $\frac{1}{4}$ mile higher up the stream consists of six stone piers (see sketch), placed in the ordinary way with a wicker roadway which is broken between the two middle piers.

Note.—There are no fords.

Route No. 2.

FROM DIZFUL TO KALA BAZUFT.

Authority—Lieutenant W. D. McSwiney, 7th Dragoon Guards, and Imam Sharif, Khan Bahadur.

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	
I	...	DIZFUL	} For account of the first three stages, see the route from Dizful to Pul-i-Kul.
II	...	TABIRAN ...	8	8	
III	..	DUMA KAIL ...	11½	19½	

'ONE OF THE BROKEN BRIDGES OVER THE AB-I-DIZ AT PUL-I-KUL.' [24v] (2/2)



'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [25r] (54/90)

25

11

ROUTE No. 2—*contd.*

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	
	22nd May 1891. A.M. 6-15	DUMA KALE ...	...	...	Weather fine.
		.....	...	...	Leave camping-ground. Bearing of general direction is south-east. Track lies over country very much cut up by ravines.
	7-10	.....	...	...	Cross a small stream running south-east, the water of which is good. Halt for bearings.
	7-30	} .....	...	...
	7-45		...	...
	8	.....	...	...	Cross another small stream just above a waterfall, stream running south-east; water good.
	8-35	} .....	...	...	Halt. Ground now falls on right and left as for some distance the track lies along a high ridge.
	8-50		...	...
	10	.....	...	...	Follow the course of a small stream and pass through a deep ravine.
	10-15	RIVER, NAME UNKNOWN, FORD.	...	...	Cross a large stream 20 to 30 yards broad, flowing south-east. Banks show signs of having been overflowed.

This is the worst part of the road as some of the descents into the stream are very steep, 8°. Ramps would have to be cut in the conglomerate rocky bank instead of steps which are very deep, otherwise the stage is an easy one for mules.

	11	.....	...	...	Cross the now <i>nearly</i> dry bed of a large stream.
	P.M. 12-30	} .....	...	...	Halt.
	12 45		...	...

In the distance is seen the fort of Sar-i-Dasht situated in an extensive and fertile plain on the river called by the natives Donoban.

'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [25v] (55/90)

12

ROUTE No. 2—contd.

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate	Total.	
IV	2	SAR-I-DASHT RIVER DONOBAN FORD.	14	33 $\frac{1}{2}$	Arrive at Sar-i-Dasht on the river Donoban, the bed of which is 40 to 50 yards broad with high perpendicular banks.

Ford at this time of year about 1 $\frac{1}{2}$ ' to 2' deep, but banks show signs of water rising 8' and 9' higher. Current not very swift.
Note.—Actual time taken after deducting halts marching from Duma Kail to Sar-i-Dasht = 7 hours.

Population about 40 to 60 people.

Huts principally of mud and stone with thatched roofs. There are two forts here—one in fairly good repair (see sketch), the other in complete ruins, surrounded by numerous mounds; there are also the remains of an ancient reservoir and a beautiful level piece of ground with goal posts of stone at either end.

To the archaeological explorer I consider this place to offer a field of research.

Supplies—Can be estimated by the number of inhabitants, they have however very large herds of goats and cattle. The country round is well cultivated and irrigated.

Fuel—Is scarce.

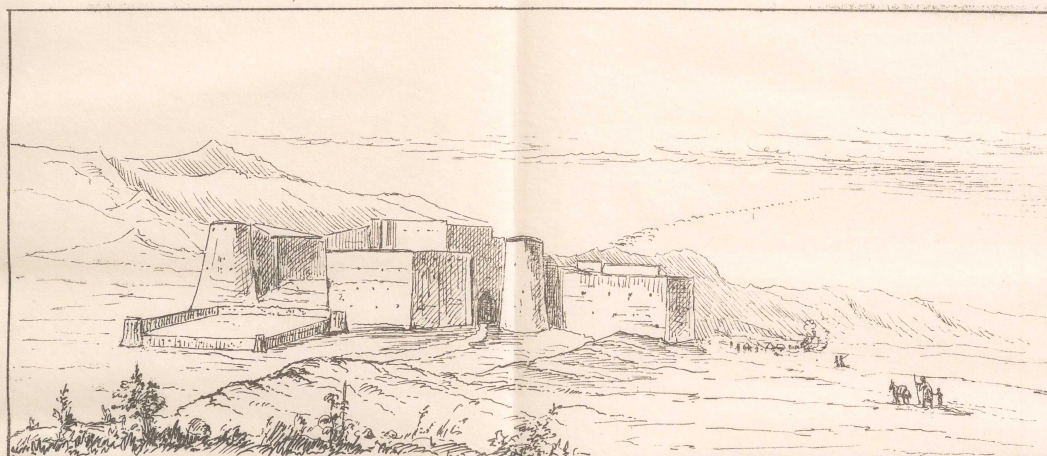
Water—Is plentiful and good from river.

Grazing—Good.

23rd May 1891.					Weather fine.
A.M.					
6-30	SAR-I-DASHT	...	...	...	Leave Sar-i-Dasht. Bearing of general direction of route is south. Track for an hour lies over a gentle, undulating and fertile plain.
7-30	}	.....	...	...	Halt.
7-40					Track passes a Ziarat on the left hand.
8	.....	...	...	...	Ground now becomes again broken on either side of the track, which becomes very stony and over tiers for an hour passes in and out of deep ravines and of limestone ridges.
9	}	.....	...	...	Halt.
10					For another hour the same sort of ground is traversed, but it is not difficult.
11	}	.....	...	...	Halt.
11-30					For half an hour the track lies over open ground and then rises gradually up the side of a mountain.
P.M.	}	.....	...	...	Halt.
1					
1-15					
...	RIVER AND FORD	...	...	...	Descend mountain side again and ford the river (name unknown), <i>width</i> of stream at crossing 75 yards, <i>current</i> very rapid; depth of water up to horse's girths, banks show signs of water rising to considerable height above present level.

'THE FORT OF SAR-I-DASHT' [26r] (1/2)

26

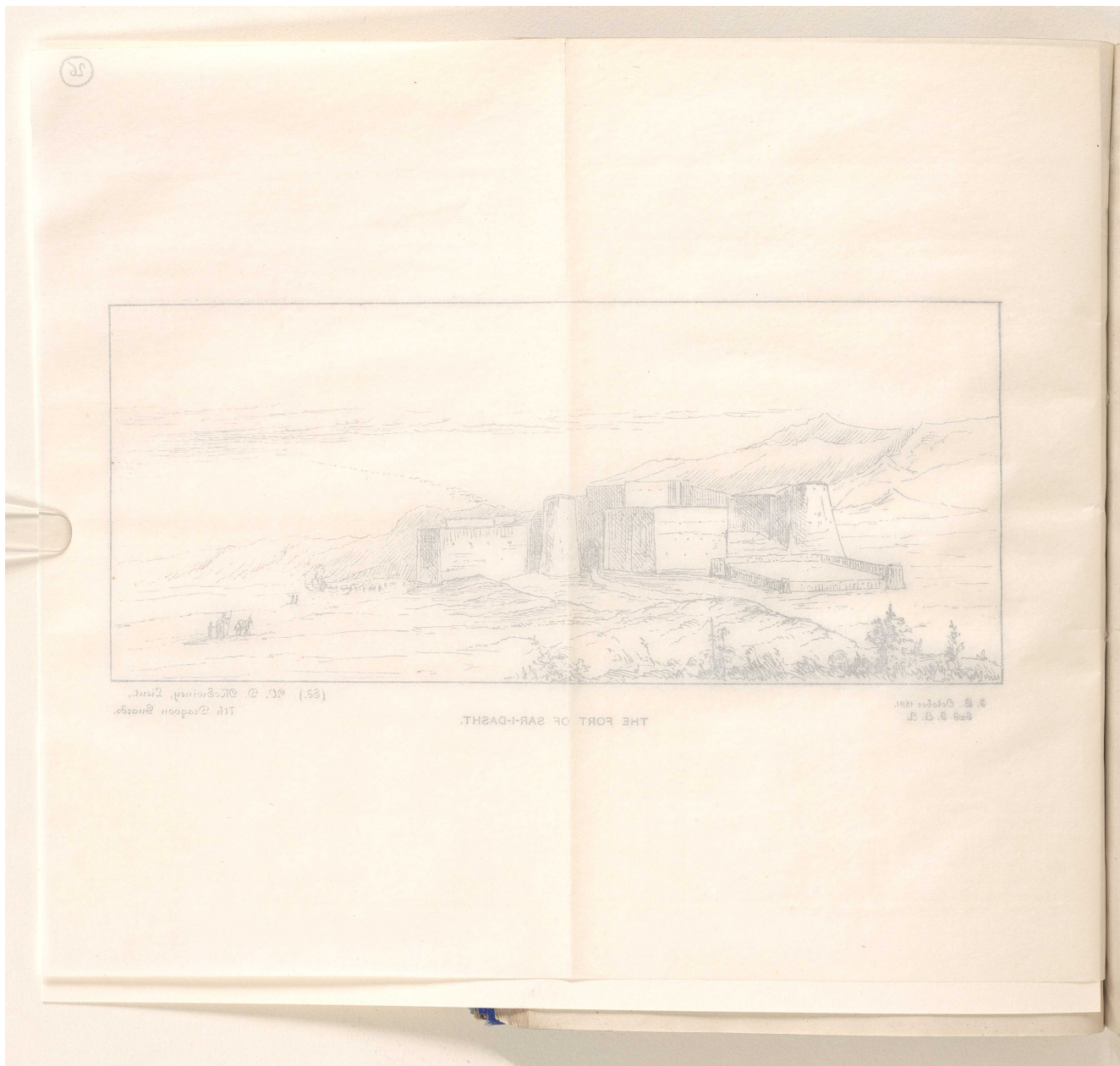


S. B. October 1891.
S. B. S. A.

THE FORT OF SAR-I-DASHT.

(S. B.) W. D. McSwiney, Lieut.,
7th Dragoon Guards.

'THE FORT OF SAR-I-DASHT' [26v] (2/2)



'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [27r] (58/90)

(27)

ROUTE No. 2—contd.

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	
					Bed of stream pebbly. A steep climb up the other bank of 30° slope brings us on to an undulating plain, on which in a few minutes we strike the main track, which we had lost

a short time before and so missed the ford usually used, half a mile higher up the stream. For another 2¼ hours the track lies over the above-mentioned plain.

V	P.M. 3-30	SALWATI	...	14	47½	On reaching the next stream we decide to encamp on the left bank. The bed of the stream is a deep one and about 70 yards broad, at the present time of year easily fordable as there is not much water.
	...	RUINED FORT OF SALWATI.	...	...	...	About 500 yards from the right bank of the stream is the ruined fort of Salwati.

It is surrounded by a deep moat of some 60' to 70' deep; and must have been a place of some strength in days gone by. The moat was evidently formerly connected with the river by a canal.

Supplies.—None.

Fuel.—Scarce.

Water.—Excellent from stream.

Forage.—Grazing at this time of year (May) very poor as most of the grass is dried up.

Note.—Care should be taken to prevent servants or followers lighting fires on the dry grass as in few minutes the country for miles round will be in a blaze unless the greatest efforts are used to extinguish the first outburst of a flame.

Mosquitoes here were perfectly unbearable.

V	24th May 1891. A.M. 6-30.	THE QUEEN'S BIRTH-DAY, GOD BLESS HER.	...	...	...	Weather fine. Temperature, at 5-p.m. 100° Fahrenheit.
		SALWATI	...	...	...	Leave camping-ground. Bearing of general direction of route is south-east. The track is broad and well defined over an extensive undulating and fertile plain.
	7	}	.....	..	..	Halt for bearings. Ground now falls nearly 1,000'.
	7-10	
	7-30	.....	..	..	..	Cross a stream. A few mud huts are seen on the left bank about half mile up stream.
	8-30	.....	..	..	..	Cross bed of a very large stream, bearing 183°, width 250 yards, with perpendicular banks gradients of which at point of crossing about 6° slope.

ROUTE No. 2—*contd.*

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	

Road still over an extensive undulating plain thickly covered with Konar bushes.

	9-30	.....	...	...	Two more large deep beds of streams are crossed.
	10-30	}	.....	...
	11				Halt.

At three cross roads met with here, the centre one is taken, bearing of which is *south-east*.

	11-30	}	.....	...	...	Halt.
	11-45					
VI	12-30	BABADI	...	11½	59	Track passes within 2 miles of the main range of hills and becomes stony in parts in descending into a broad well cultivated valley

where we encamp, on the left bank of small stream running south-west. The spot is called Deh Babadi.

Note.—Actual time taken marching, after deducting halts, from Salwati to Babadi = 5 hours and 5 minutes.

The remains of numerous "ilyat" encampments were passed during the day's march which showed the neighbourhood was a favorite one for "ilyat" winter quarters.

There is no village here.

Supplies.—None.

Water.—In another month will probably become very scarce up to September.

Fuel.—Scarce, only the Konar trees.

Forage.—The grazing is poor at this time of year (24th May).

	25th May 1891. A.M. 7-20	BARADI	Weather fine. Leave camping-ground. Bearing of general direction of route is south-east.
--	-----------------------------------	--------	-----	-----	-----	---------------------------------------------------------------------------------------------

The track is good over undulating ground and across numerous streams.

	8	Cultivation on all sides. Cross roads from Dizful and Shuster here join our track which now becomes broad and plainly defined.
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Here and there stony, but no obstacles for mules.

'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [28r] (60/90)

28

15

ROUTE No. 2—contd.

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	
...		ZIARAT AND VILLAGE OF SAR-I-SHAH.	...	...	About $\frac{1}{2}$ mile from the cross roads can be seen the Ziarat and village of Sar-i-Shah, situated at the foot of some low hills to the westward.
	9	.....	...	...	An extensive cemetery is passed on the right of the road.
	9-15	} .....	...	...	Halt.
	9-30				
	10	BABA AHMAD	...	...	The ruins of a town are passed, the place bears signs of having at one time been of considerable importance as there are remains of two storied houses, large reservoirs and a fort of some size.
	10-20	TUNGI BABA AHMAD	...	...	The Tungi or Pass through which the Chulbar river flows is now entered.
	...	RIVER OF CHULBAR	...	...	There are some remains of fortification on the right bank at the first bend of the river after entering the "Pass" of Baba Ahmad. Breadth of river 40 yards, stream very rapid. High banks thickly covered with rushes.
	...	FORD	...	...	Two fords at this time of year (May) just inside bend of river, about $\frac{1}{2}$ mile apart.

Depth of water up to horse's girths, but banks show signs of water rising considerably higher.

10-45	Track passes along the right bank of river.
-------	-------	-----	-----	---------------------------------------------

Ground opens out a good deal on either side of river, and slopes of hill sides not so precipitous.

11-30 P.M. 12	}	Halt.
------------------	---------	-----	-----	-------

ROUTE No. 2—*contd.*

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	
	P.M. 12-30	.....	...	...	Hills now close in again and track passes along ledge of rock overhanging stream.

Path for last hour is very stony, but could soon be made a good one.

After entering the Tungi of Baba Ahmad the bearing of general direction of route changes to north-easterly.

VII	1	CHULBAR	...	12	71	At the easterly end of the Tungi the track ascends a hill by a stony zigzag path for about 400 feet, and then descends the other side into the picturesque valley of Chulbar by a path with a gradient of 8° where we encamp on the right bank of the river about half a mile from the "Pass" or "Tungi."
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At the end of the Tungi there are the remains of an old bridge (see sketch).

There are a few huts to be seen here and there on the hillsides, but no village.

There is a water-mill at the mouth of the pass from where a certain amount of flour can be obtained.

Note.—After deducting halts, actual time taken from Babadi to Chulbar = 7 hours, 35 minutes.

Supplies.—None.

Water.—Is plentiful and good.

Fuel.—Oak and other trees and bushes.

Forage.—Excellent grazing.

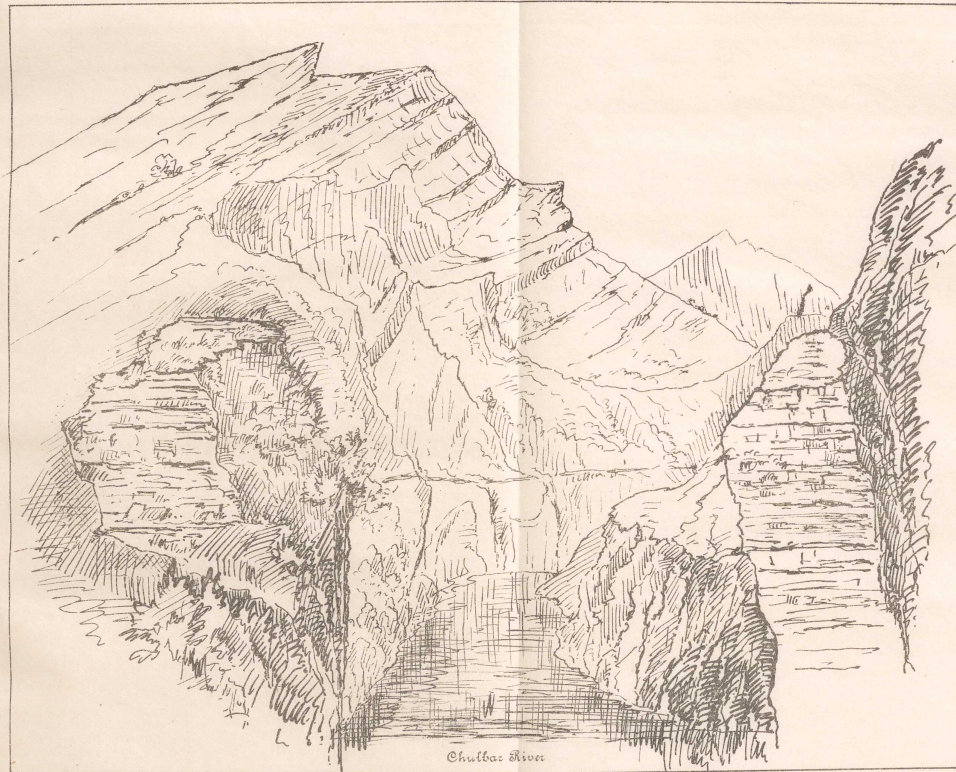
Along the left bank of the Chulbar river in the "Tungi" of Baba Ahmad, there is a water conduit in fairly good repair.

The narrowest portion of the "Tungi" is about 20 yards across.

26th May 1891. A. M. 6-35	.....	...	...	Weather fine.
7-45	.....	..	...	Leave camping-ground and cross the Chulbar valley along a well defined track.
8-15	.....	...	...	Track turns more easterly up a ravine.
8-25 8-45	} .....	...	...	Track ascends hillside, very stony in parts, but not difficult.
		...	...	Halt.

'BROKEN BRIDGE EAST END OF THE TUNGI BABA AHMAD.' [29r] (1/2)

29

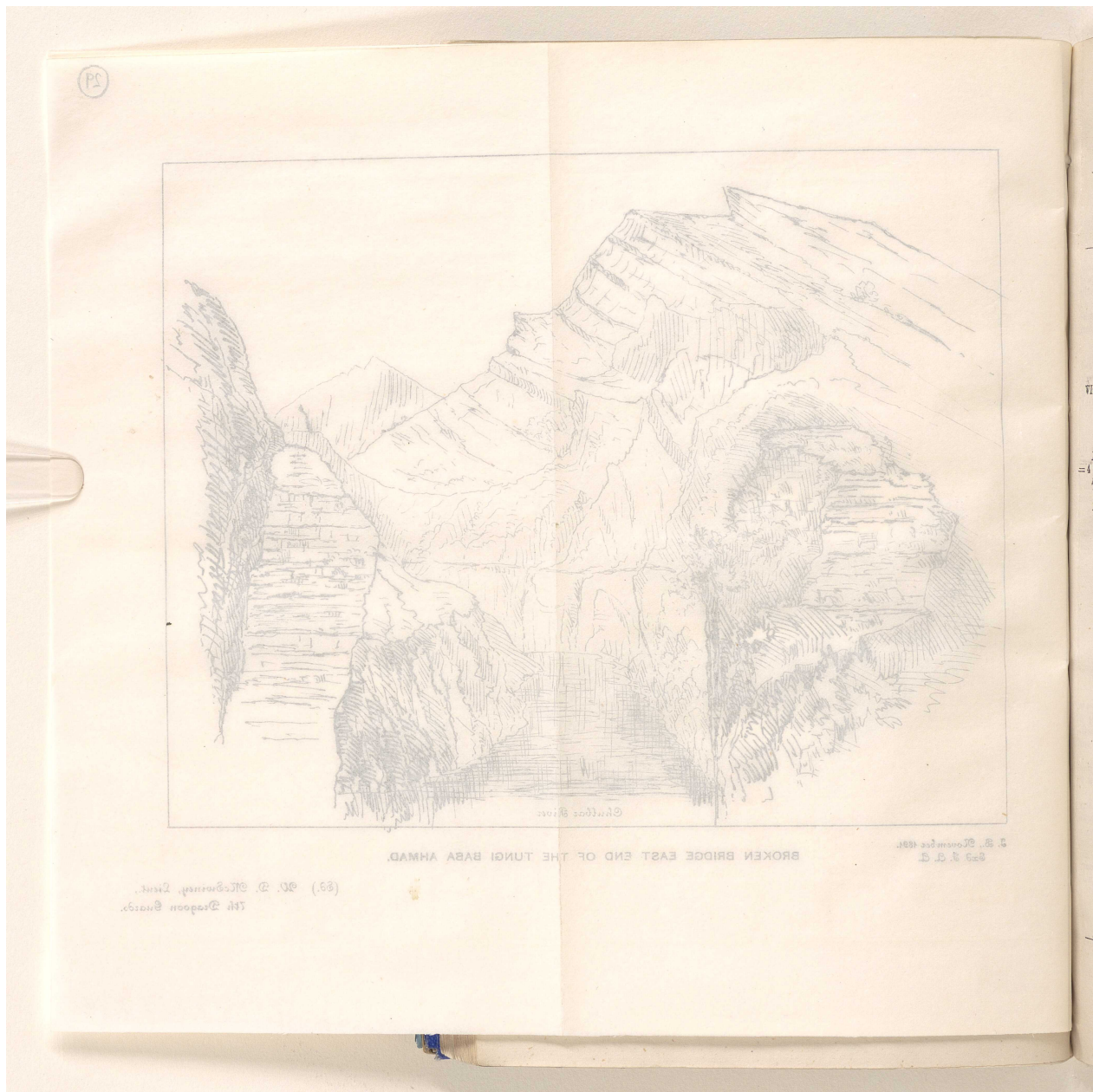


J. B. November 1894.
S. 22 J. A. C.

BROKEN BRIDGE EAST END OF THE TUNGI BABA AHMAD.

(Sd.) W. D. McSwiney, Lieut.
7th Dragoon Guards.

'BROKEN BRIDGE EAST END OF THE TUNGI BABA AHMAD.' [29v] (2/2)



THE TUNGI BABA AHMAD
(29) © J. D. Stoddart 1937

BROKEN BRIDGE EAST END OF THE TUNGI BABA AHMAD.

J. D. Stoddart 1937
D. J. N. 626

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'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [30r] (64/90)

30

17

ROUTE No. 2—*contd.*

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	
	A.M. 9-30	.....	...	...	Descend to and cross bed of a stream and ascend the opposite bank on to a broad water-shed.
	9-45 10	} .....	...	...	Halt.
VIII	11-15	HAUD-I-NAU ...	8	79	Track is now very good. Arrive at the "ilyat" encampment of Haud-i-Nau at the foot of Kuh-i-Monar range.
<p><i>Note.</i>—After deducting halts, actual time taken marching from Chulbar to Haud-i-Nau = 4 hours, 5 minutes. <i>Supplies.</i>—None. <i>Water.</i>—At this time of year (May) only obtainable from a few springs. <i>Fuel.</i>—Considerable. <i>Forage.</i>—The grazing is good.</p>					
	27th May 1891. A. M. 5-45	.....	...	...	Weather fine. Leave camping-ground. Bearing of general direction is north-easterly. The road is a well defined one rising by gradual gradients up the side of the Monar mountain, which in parts is perpendicular, to where it crosses the crest.
	7 7-40	} KUH-I-MONAR 5,800'.	4	83	Halt for bearings. The roadway has been built with some care originally as is shown by the way the stones are placed, but by the traffic of ages they have become very slippery, and some have become displaced through neglect and by the action of torrents of rain. The road is, however, quite good enough to ride the whole way up to the crest 5,800'.
	8-20 8-40	} .....	...	...	The road now descends the north-east slope by easy gradients, but as it is very rough owing to the loose stones it is impossible to ride down. Halt. Side of hill thickly wooded with oak.

D

'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [30v] (65/90)

ROUTE No. 2—contd.

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.	
			Inter-mediate.	Total.		
	A. M. 9-30	.....	...	...	Reach a plain on which are some "ilyat," encampments and pass long lines of stone walls evidently used formerly as lines of defence. This is said to be one on the battlefields of the celebrated Bakhtiari Chief, Muhammad Taki.
	10 10-30	} .....	...	...	Halt. Descend into a narrow valley and follow course of a stream through a narrow mountain gorge passing numerous springs of beautiful cold water on our left hand, thence making a sharp turn to the right pass along a very picturesque and fertile valley of about half mile broad.
IX	P. M. 12 12-3	} SHIMBAR	...	5	88	Another sharp turn is made to the left (north) and track passes through some small hills into the large picturesque and fertile valley of Shimbar, where we encamp near the river.

Note.—After deducting halts, the actual time taken marching from Haud-i-Nau to Shimbar = 4 hours, 45 minutes.

Supplies.—None.

Water.—Is excellent and plentiful from river and other small streams.

Fuel.—Is plentiful.

Forage.—Excellent grazing.

Here and there "ilyat" black encampments are to be seen on the mountain sides.

	28 TH MAY 1891. A. M. 6-5.	SHIMBAR	...	...	...	Weather fine.
	6-30	.....	...	...	...	Leave camping-ground: cross to left bank of the river. Bearing of general direction of route is north-easterly. Track very good over deep undulating country. A village is passed about 200 yards on our left, numbering about 9 stone huts. Near this point another large stream is crossed flowing in a south-westerly direction.
	7 } 7-15 }	.....	...	...	...	Halt. Cross the saddle of a hill, track rough and stony, and descend into the valley of Chilau.
	8 } 8-25 }	.....	...	...	...	Halt.

(31)

ROUTE No. 2—*contd.*

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	

Track now becomes good and easy going.

	9-50	CHILAU VILLAGE ...	6	94	The village and Imamzada of Chilau is passed, situated about 1,000 yards from track, well up the hillside on our right. It is well cultivated.
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The valley of Chilau is here about 1½ miles broad.

	10	Cross dry stony bed of stream. Track good.
	10-30	.....	...	...	Halt.
	10-50	.....	...	...

VIII	11-30	TARAZ ...	4	98	Track rises up the south-eastern end of the Chilau valley on to a saddle on the other side of which is the valley of Mori. Gradient of ascent is about 5°, but the track is very stony. Halt near some springs, on the mountain side about 4 miles from crest of saddle called Taraz.
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Note.—After deducting halts, actual time taken marching from Shimbar to Taraz = 4 hours, 25 minutes.

Supplies.—None.

Water.—Scarce from a few springs.

Fuel.—Plentiful as the mountain side is covered with stunted oaks and other trees.

Forage.—The grazing is poor at this time of year (end of May).

Note.—A few "ilyat" encampments were seen in the Chilau valley, but most of the tribes have moved up to their "ilag" or pastures at higher elevations.

	29TH MAY 1891. A.M. 6 6-10	TARAZ (Springs) ... TARAZ SADDLE (5,600')	...	4	102	Weather fine. Leave camping-ground. Track to top of the saddle of the hill is very stony, and gradient of ascent is about 7°. Reach the saddle, height 5,600'. From this point there are two roads leading down into the
--	-------------------------------------------	----------------------------------------------	-----	---	-----	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Mori valley, one goes along the saddle of the hill higher up, but the best and shortest descends into the valley by a new road, just made by the Ilkhani of the Bakhtiaris, cut in the face of the hill, gradients are about 5°. It meets the other track about half-way down the hillside.

	7-30	Track very good through a thick oak forest.
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Numerous small streams are crossed flowing south-west.

'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [31v] (67/90)

ROUTE No. 2—concl'd.

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	
	A.M. 8-20 8-35	.....	...	...	Halt.

Every attempt seems to have been made to improve the track as the Bakhtiari appear here to have been at the trouble to even break up the stones.
This route to Isfahan is far easier than that *viâ* the Mal-i-Mir plain.

XI	9-45	MORI	...	9	111	Halt in the Meri valley, which is well cultivated. There are a few stone huts on the hillsides which show that all the year round there are a certain number of permanent inhabitants.
----	------	------	-----	---	-----	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Note.—After deducting halts, actual time taken marching from Taraz to Mori = 3 hours, 30 minutes.

Supplies.—None.

Water.—From stream in middle of the valley.

Fuel.—Not very plentiful.

Forage.—The grazing is good.

XII	...	MORI	...	...	...	From Mori the road for about 5 miles passes over a steep spur till it reaches Hazar Cham, the name of a "gardan" not far off, the height of which is 6,750'.
XIII	...	HAZAR CHAM	...	5½	116½	Here, at Hazar Cham, is a small spring near which the caravans halt. <i>Supplies.</i> —None. <i>Water.</i> —From spring. <i>Forage.</i> —Grazing good from the place.
XIV	...	GALA-I-KACHUZ	...	6	122½	For about 5 miles the road winds along side of the low range of the Kuh-i-Safid until Gala-i-Kachuz is reached, which is the residence of a few of the Mori tribe, who are thorough robbers.

...

...	...	KALA BAZUFT	...	7½	130	From hence, the road follows the course of a small stream to Kala Bazuft, 7½ miles distant. The road is in very good condition as it is the one usually taken
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by most of the Bakhtiari tribes, when moving to and from the highlands or to Isfahan from Shuster or Dizful.

For particulars of Kala Bazuft, see Major Sawyer's reconnaissance in the Bakhtiari country.

'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [32r] (68/90)

32

Route No. 3.

FROM KALA BAZUFT TO SHUSTER.

Authority—Lieutenant W. D. McSwiney, 7th Dragoon Guards, and Imam Sharif, Khan Bahadur.

Number of stages.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	
I	...	KALA BAZUFT	For the detailed account of these stages, see Route No. 2, Dizful to Kala Bazuft.
II	...	GALA-I-KACHUZ ...	7½	7½	
III	...	HAZAR CHUM ...	6	13½	
IV	29th May 1891. P. M. 12	MORI (3,750') TUNGI AND FORD.	5½	19	

Track is very rough; riding is impossible. It is a mere climb up and down, the side of the Tungi rising up sometimes to 200 feet above the level of the stream.

	2	.....	...	...	General bearing of direction through Tungi is southerly. Reach comparatively level ground at the end of the Tungi, the stream of which makes a sharp turn to the south-west into the Susan valley.
IV	4	SUSAN ...	5½	24½	Track follows course of stream until the village of Susan is reached, where we encamp on right bank of stream.

In this picturesque valley are to be found vines, fig and walnut trees in great quantity. The valley is also well cultivated, and irrigation is carefully attended to. There is a little water-mill which is busily engaged grinding wheat from sunrise to sunset.

Houses number about 40 to 50, built of mud and stone. The inhabitants are friendly and willing to assist us.
Supplies.—Obtainable for a small party from village.
Fuel.—Is plentiful.
Water.—Is excellent and plentiful from stream.
Forage.—The grazing is excellent.
Note.—Time taken marching from Mori to Susan = 4 hours.
 Halt one day here.

	31st May 1891. A. M. 5-45	SUSAN ...	...	...	Weather fine.
					Leave village. Bearing of general direction is westerly.

'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [32v] (69/90)

ROUTE No. 3—contd.

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	
					Our path is good along the side of the stream for some distance. Numerous springs are passed on the hillside. Valley very undulating.
	7-45	.....	...	...
	8	.....	...	...	Halt for bearings on crest of a hill. For the next two hours track crosses two small valleys, and is very rough.
	10	KUH-I-FETCH (4,350').	...	...	Halt for bearings on Kuh-i-Fetch. Bearing of general direction turns south-west. Commence descent into the valley of Shallar.
	10-30				
					Track bad, stony and gradients about 9°. Slope of mountain side 18°.
	11-30	.....	...	...	Track now becomes much easier as the level ground of the valley of Shallar is reached.
V	P.M. 12-30	SHALLAR ON SHIMBAR RIVER.	8	32½	Arrive on the left bank of the Shimbar River which runs through the Shallar valley. We encamp near some "ilyat" black tents; there are a few stone huts lower down stream near where a Tungi is entered.
					<i>Supplies.</i> —None. <i>Fuel.</i> —Plentiful. <i>Water.</i> —Excellent supply. <i>Forage.</i> —The grazing is excellent.
		FORD AND BRIDGE ...	...	...	<i>Ford.</i> —A dangerous one as the current is very swift, about 5 miles and hour. Depth 4' and 20 yards broad. Bottom, pebbly. Bank shows signs of water rising to 8 feet.
					<i>Bridge.</i> —Near ford there is a bridge made of branches and slung over stream; it is only fit for foot passengers.
					<i>Note.</i> —After deducting halts, actual time taken marching from Susan to Shallar = 6 hours.
	1st June 1891. A.M. 4-50	SHALLAR.			Weather fine.
	5	.....	...	...	Leaving camping-ground. Arrive at Ford.
					Each mule had to be taken across by 3 men, one at its head, a second on the down side of stream, and the third holding the animal's tail.
					One with all our precautions was nearly lost. I myself the day before when searching for a ford was nearly carried away.
	5-30	.....	...	...	Track for some distance follows the course of the stream, when it is joined by the stream from Mori and Susan just before

'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [33r] (70/90)

33

ROUTE No. 3—contd.

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.	
			Inter-mediate.	Total.		
V	...	.....	...	...	it enters a Tungi making a sharp turn to the right (westerly).
	A.M. 6-15	.....	...	...	The track bears away south-westerly over the mountain through which the Tungi runs. Dismount as track is very bad and descend by steep gradient of 7° over slippery stones into a deep ravine.
	6-35 6-50	} ANCIENT PAVED ROAD.	...	...	Halt for mules to come up. Track now ascends another hillside up the remains of an ancient well paved zigzag road which is about 15' broad.
	The gradients of the zigzag are about 4°.					
VI	7-10	.....	...	...	This paved track brings us to the top of the hill.
	7-20	KUH-I-BIST-I-PANJ ISTADAH, 3,400', OR HILL OF 25 STEPS. KARUN RIVER.	...	...	Another ten minutes brings us to a point on the hill where a good view of the Karun River is obtained, as it is seen about 1,000' below us at the point where it is joined by the Shimbar River.
	10 11	} .....	...	...	Halt.
	11-30	.....	...	...	We descend into the valley by 25 zigzags which are the remains of some ancient paved high road. Bottom of zigzags is reached.
	11-50	.....	...	...	From now to our next camping stage road good over undulating ground.
VI	P.M. 1	DASHT-I-GUL	...	10	42½	Arrive at our camping-ground called Dasht-i-Gul. There is no village here; only a few "ilyat" encampments in the neighbourhood.

Note.—After deducting halts, actual time taken marching from Shellar to Dasht-i-Gul = 6 hours, 55 minutes.

Supplies.—None.

'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [33v] (71/90)

ROUTE No. 3—*contd.*

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	

Water.—Scarce and brackish.

Fuel.—Scarce.

Forage.—The grazing is at this time of year (June) very poor.

	2nd June 1891.	DASHT-I-GUL	...	...	...	Weather fine.
	A.M. 5-30	.....	...	...	...	Leave camping-ground. Bearing of general direction is easterly.
	6-35	.....	...	...	...	Track over hilly country which soon becomes <i>very</i> broken.
	6-40	}	.....	...	...	Halt. Ground for $\frac{1}{2}$ hour becomes more open and track good until the Tungi between the two hills of Aran and Pul-i-Shah is entered.
	7					
	7-30	.....	...	...	...	Road in Tungi very bad, we have to build up ramps so as to get our mules over the huge boulders in the now dry bed of a stream.
	9	.....	...	...	...	Bearing of Tungi at entrance 220° ; half-way through it turns to the right; bearing 125° . Track rises out of Tungi to the top of hill.
	9-10	}	.....	...	...	Halt on top of hill for bearings.
	9-25					
	9-45	.....	...	...	...	Track passes eastward along a valley.
	10-30	.....	...	...	...	Pass over a hill, surface of which is very slippery, being of gatch.
	11	}	.....	...	...	Ground broken generally. Halt.
	11-30					

Country now becomes more open as the undulating plain of Andaka is approached, in the middle of which is situated, on a circular hill, the Kilah-i-Sith belonging to Isfendia Khan.

VII	P.M. 1	MUSHGARI	...	12	$54\frac{1}{2}$	Encamp near some black "ilyat" tents at a spot called Mushgari.
						<i>Note.</i> —Actual time taken after deducting halts marching from Dasht-i-Gul to Mushgari = 6 hours, 25 minutes.
						<i>Supplies.</i> —None.

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ROUTE No. 3--contd.

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	

Water.—Scarce.

Fuel.—Scarce, only Konar bushes and wild almond trees.

Forage.—Grazing very poor at this time of year (June).

We were not well received here on first arrival as they said I was a Kafar, but a present to the Kat Khuda, who himself had received us well, and who was told I was a guest of the Ilkhani, soon made matters all right.

3rd June 1891. A. M. 5	MUSHGARI	... ..	... ..	... ..	Weather fine.
	.....	... ..	... ..	... ..	Leave camping-ground. Bearing of general direction is westerly. For nearly an hour our path lies over an undulating plain, with a considerable number of small

villages and ilyat black tents to be seen in all directions.

5-50	}	Halt for bearings. The village of Saiadha is passed about $\frac{1}{2}$ mile to left of track.
6-10					
6-30					

Track becomes rough and stony as it descends into a valley at the foot of the Kuli-Landar mountain.

7-50	KILAH ZIARAT	Arrive at the Fort and village of Kilah Ziarat.
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The village numbers about 150 stone huts, with a large building in the centre which evidently must at some former time have been a caravansarai.

...	LANDAR MOUNTAIN (3,450').	The inhabitants appeared very friendly and after exchanging a few words with them we proceeded to the top of the Landar mountain.
-----	------------------------------	--------	--------	--------	-----------------------------------------------------------------------------------------------------------------------------------

The ascent is easy; gradient of path about 4°.

On reaching the crest a fine view is obtained of the Karun as it winds away north-west and south again past Shuster, the lower portion of the town being only just visible from behind a large hill which screens the upper part.

The appearance of the country between Landar mountain and Shuster is very broken, although the natives report a good footpath.

E

'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [34v] (73/90)

ROUTE No. 3—*contd.*

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate	Total.	

There is no ford or bridge at the foot of Landar mountain, but the people when they want to go this route inflate a skin and swim across.

	9	}	Halt to take bearings.
	10					
	11-30					

From here for the remainder of our march the track lies up and down over hills of gatch, sometimes along a deep ravine between them, sometimes along their crest.

	P. M. 1-45	}	.....	...	...	Halt for bearings. From now until we descend into the valley Chittee, through which the Chulbar stream runs, the nature of the country is as described above.
	2-5					
VIII	5	CHITTEE MOUNDS AND FORT.	19	73		Encamp at Chittee. Here there are the remains of numerous mounds and the ruins of an old fort. There is not, however, a human being to be seen anywhere. <i>Supplies.</i> —None. <i>Fuel.</i> —Scarce. <i>Water.</i> —Is plentiful and excellent from stream. <i>Forage.</i> —The grazing is very poor, at this time of year (June).

Note.—Actual time taken, after deducting halts marching from Mushgari to Chittee = 10 hours, 10 minutes.

	4th June 1891. A. M. 5-45	CHITTEE	Weather fine. Leave camping-ground. Bearing of general direction is northerly. Track for a short distance lies along the valley, then over hilly and broken country. Halt for bearings.
	6	}	Reach a large plain. Village of Tumbal is a mile on our left.
	6-10					
	6-25					

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ROUTE No 3—*contd.*

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.	
			Inter-mediate.	Total.		
Beds of numerous streams are now crossed with scarcely any water in them.						
	6-45	}	.....	...	...	Halt for bearings.
	7					
	8	RIVER (NAME UNKNOWN) FORD.	...	...		Descend into a large valley. Cross a large stream. Ford 3 feet deep, width of stream 40 yards. Bottom pebbly. Current rapid.
	8-40	.....	7½	81		Banks show signs of overflowing. Track leaves the valley and passes up a ravine on to the extensive plain of Lali.
	8-50	}	.....	...	...	Halt for bearings.
	9-15					
Bearing of general direction now changes to westerly. Road good across this extensive plain towards the valley of the Karun.						
	10	}	.....	...	...	Halt for bearings.
	10-20					
	10-45					
	11-45	.....	...	...		The track is very trying to laden animals. A bend in the Karun river is struck, the descent to the bank of which is steep, gradient 10°, a bad attempt here at making a road.

For the next ¾ hour we follow the course of the Karun.

We are unable to keep to the river bank as it is precipitous, so have to climb up and down over the hills along side.

I	P.M. 12-30	CHAMAN-I-YORGHHA...	7	88	Encamp on a hill near the Karun at a place called Chaman-i-Yorgha.
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Note.—Actual time taken after deducting halts marching from Chittee to Chaman-i-Yorgha = 5 hours, 35 minutes.

Supplies.—None.

Water.—Is plentiful from the Karun river.

Fuel.—Scarce.

Forage.—The grazing is very poor.

'A RECONNAISSANCE IN SOUTH-WEST PERSIA' [35v] (75/90)

ROUTE No. 3—contd.

Number of stage.	Time.	Names of towns, villages, rivers, &c.	DISTANCE, IN MILES.		Detail.
			Inter-mediate.	Total.	
	5th June 1891. A.M. 5	CHAMAN-I-YORGH...	...	...	Weather fine. Temperature at 2 P.M. 115° Fahrenheit.
	6-45	.....	...	...	Leave camping-ground. Bearing of general direction is westerly. Track passes along edge of hills on right bank of Karun.
	8-30	.....	...	...	Track very bad where it dips to cross a stream flowing into the Karun, as the gradients are steep 12° slope.
	9	} .....	...	...	Halt.
	9-45				
	10-45	.....	...	...	Track bad in the Tungi, as it has to pass through a short tunnel.

Track now comes out on open ground for some distance until the Tungi Kilah-i-Rustam is reached.

A few minutes brings us through this Tungi, the track is good, and comes out on the plain of Gotwand or Akeili.

	11	} .....	...	...	Halt.
	11-25				
	P.M. 1	.....	...	...	Bearing of general direction of road now is southerly.
	3-30	.....	10	98	Gotwand is passed. Jella Khan is passed about a mile to the left.
	6	KARUN (RIGHT BANK)	12	110	We reach the right bank of the Karun opposite to Shuster. Cross Karun river by raft, swimming animals across.
	7	.....	...	...	Arrive in Shuster*.

Note.—Actual time taken marching after deducting halts from Chaman-i-Yorgha to Shuster = 12 hours, 50 minutes.

* For description of the town of Shuster, see "Persian Gazetteer," and Colonel Bell's "Military Report on South-West. Persia."

'VIEW OF THE VALLEY OF MAL-I-MIR, December 1890.' [36r] (1/2)



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Appendix A.

The following is an account by Major Bruce, 19th Bengal Lancers, of a journey across the Bakhtiari mountains from Shuster to Isfahan, which he and Lieutenant W. D. McSwiney, 7th Dragoon Guards, performed in the winter of 1890.

To

MAJOR SAWYER,

ASSISTANT QUARTER MASTER GENERAL,

SIMLA.

Journey in December 1890, from Shuster to Isfahan.

(1) *Shuster to Zan Murdeh*, 6 farsacks.—Travelled over open country for 2 farsacks, after which the track was through low hills the whole way. The path was not difficult for mules, but would need considerable levelling and opening out for wheels.

Zan Murdeh is situated in a basin, completely surrounded by hills, with a stream of good water running through it. Caravans sometimes halt here, but there is no village.

(2) *Zan Murdeh to Gul Gir* (or Goor-beer), 8 farsacks.—For five hours rode over a grassy undulating vale, a high range of (gypsum) hills on left hand, a low range on right. Up to this the way was good and practicable for guns. Turned east and ascended a very difficult zigzag path for one hour, when a grassy plateau was reached, along which, for four hours in a south-east direction, the path was easy and practicable for guns up to Gul Gir.

Gul Gir is a Bakhtiari* village of reed huts with a stream running close by it.

* Not a village of Saiads.

(3) *Gul Gir to Kila Madrassa No. 1*, †‡ farsacks.—General direction south-east, went for more than a mile over a stony plain, and entered hills shown on map as confused mass.† This stage was extremely rough, riding being nearly impossible the greater part of the way. The route followed the line of a stream, which had to be crossed nine times. The gradients were nowhere very great, but the track was hardly visible, worn rock here and there alone indicating it.

† There is another Kila Madrassa between Mal-i-Mir and Godar-i-Balutak.

‡ To a great extent true description.

At Kila Madrassa there are two ruins; § a patch of black soil which shows signs of having been cultivated by the "Ilyats." A stream of good water runs through the place, emptying itself into the stream we had so repeatedly crossed; the latter is brackish and undrinkable. A mountain battery and half a battalion could camp here.

§ Either forts or one a fort and the other a serai.

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(4) *Kila Madrassa No. 1 to Mal Saiadi*, 3 farsacks (or less).—Crossed brackish stream, ascended a hill, descended and crossed stream again, then had to cross a mountain to get to Mal-i-Mir plain. The track worked up gradually sideways till near the top, when a sharp zigzag had to be ascended to summit. The whole way to this point had been rough and the track narrow, but a little better than that of previous day. From the top of this mountain the descent was extremely rough and rather steep, till on approaching the plain, when the path lay over ups and downs of no difficulty. Once in the plain all appeared easy. We were going to the head of Mal-i-Mir (to the village travellers call Mal Amir), but a violent storm came on with a heavy fall of hail, and we were regularly driven before it into the village of Mal Saiadi, a small collection of reed huts inhabited by Saiads.

(5) *Mal Saiadi to Mal-i-Mir*, $2\frac{1}{2}$ farsacks.—Over an easy country the whole way. One place half way stream had to be crossed, and also some low gatch hills. Several villages were seen dotted about and a large one of reed huts passed close to. The latter portion of the march lay along the edge of the lake. Cultivation was seen on all sides. Under the village * we halted near, which is on a mound, a stream runs of good water. The people were, Ilyats, who come there in winter (at least most of them reside there only in winter).

(6) *Mal-i-Mir to Char Deh*, 4 farsacks.—For an hour we went over a level plain, in one place rather marshy, then went up mountain over face of slippery steep rock. Half-way up, the old paved way, the Rah-i-Sultannah was encountered, and it was as bad travelling over as the previous rock. This ascent must have been 1,000 feet.

The descent was very bad and difficult on the other side, riding being impossible. After descending for about one hour the way became easier. From a graveyard in the route, past Kila Madrassa No. 2 to Char Deh, the track was good enough for mules.

Char Deh is a miserable village under a high mountain, which I take to be the Kuh-i-Peiria. A stream runs deep down in a gorge in front of village across which and the mountains beyond the people say there is a short cut 1 farsack to Mal-i-Mir, but only a footpath.

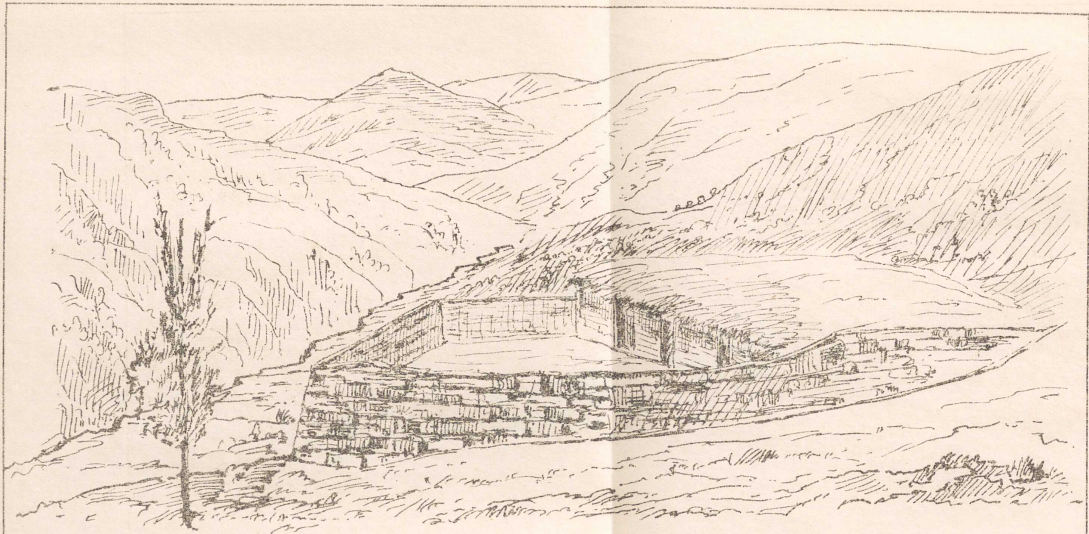
(7) *Char Deh to Godar-i-Balutak*, $2\frac{1}{2}$ farsacks.—The way is not particularly easy; it is down a gorge to the river Karun; there are many rocks in the way, which is narrow. The descent to the river is steep and left bank very rocky. Very little room for animals or baggage to be collected prior to crossing.

The crossing was easy, but took a long time, as there was only one *tiny* raft of inflated skins, and we had a good deal of baggage; our horses and mules swam across, almost straight, in a few seconds. The river was only some 50 yards wide, if so much, and not very rapid.

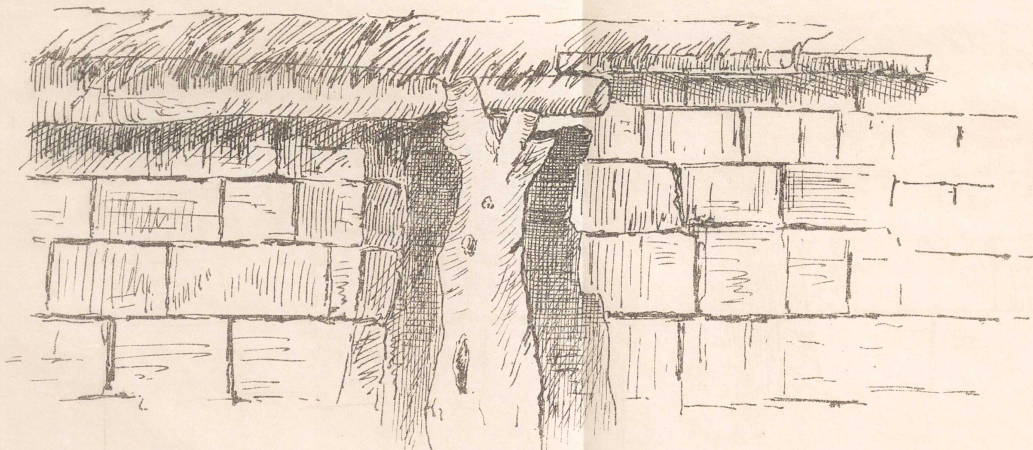
At Godar-i-Balutak there is no village. Caravans camp here on bank of river. There is room for a *large camp*. The right bank, our landing side, is easy of access. This bank consists of conglomerate rock, worn down, with a sandy edge. (See sketch.)

(8) *Godar-i-Balutak to Deh Diz*, $2\frac{1}{2}$ farsacks.—The first two miles from the river were not at all easy; the ascent was over a rough path until a stream was reached: along this we went nearly the whole way to Deh Diz; the path was narrow, but very easy. Oaks abound on this march. Deh Diz is under

'BAKHTIARI HUT BUILT INTO THE SIDE OF THE HILL AT CHARDEH, in which Major Bruce and Lieutenant W. D. McSwiney were snowed up in December 1890.' [38r] (1/2)



BAKHTIARI HUT BUILT INTO THE SIDE OF THE HILL AT CHARDEH,
in which Major Bruce and Lieutenant W. D. McSwiney were snowed up in December 1890.



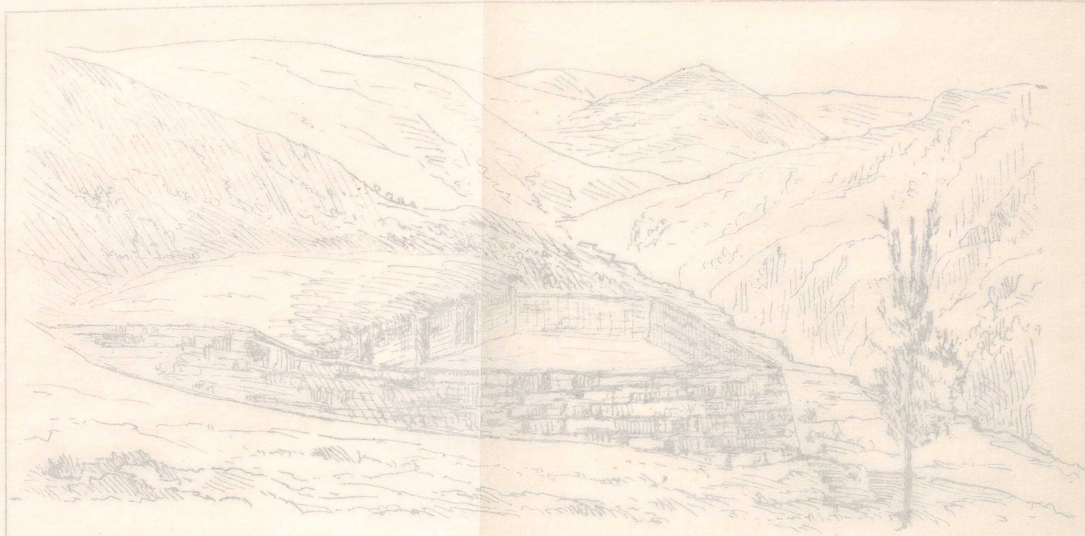
DOORWAY OF ABOVE HUT.

J. B. November 1891.
Exc. J. A. A.

(Ed.) W. D. McSwiney, Lieut.,
7th Dragoon Guards.

'BAKHTIARI HUT BUILT INTO THE SIDE OF THE HILL AT CHARDEH, in which Major Bruce and Lieutenant W. D. McSwiney were snowed up in December 1890.' [38v] (2/2)

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BAKHTIARI HUT BUILT INTO THE SIDE OF THE HILL AT CHARDEH,
in which Major Bruce and Lieutenant W. D. McSwiney were snowed up in December 1890.



DOORWAY OF ABOVE HUT.

The Captain's Quarters
(58) W. D. McSwiney, Lieut.

W. D. McSwiney, Lieut.
Dec 18 90

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a mountain, and looks over a cultivated valley, several villages being visible. This village is the largest met so far, and has a small fort. A caravanserai sort of place.

(9) *Deh Diz to Rudbar*, 4 farsacks.—A steep ascent from village, but not a rocky one. A road could be made up it without much labour.

* The descent was over snow and very slippery for more than a mile.

On the top of the mountain the snow is about six inches deep.*

From the summit of this mountain the descent was continual the whole way to river, where the bank was gained through a gorge (the bed of a stream).

This was an easy march, but going the reverse way the pull up must be very trying; half-way down the descent we passed the place where the road for "Pul-i-Sbaitan" branches off. On getting to the river bank we had to follow it for $1\frac{1}{2}$ miles, and then crossed by a ford $2\frac{1}{2}$ feet deep. The stream was strong.

Getting across we followed the bank for $\frac{3}{4}$ mile and camped at a village near the stream; above us was the precipitous mountain to be climbed the following day.

† We were only able to pitch them four times during the journey, as the weather was so bad.

There is a large encamping ground, where we pitched our tents † near the village.

(10) *Rudbar to Hillisat*, 4 farsacks.—From the village of Rudbar a steep climb for one hour had to be made to top of mountain, on reaching which we looked right down on the site where our camp had been. This ascent is not rocky as a rule, but it was so steep that I led my horse up the latter portion of it. I believe a good zigzag could be made up this mountain without much cost. From the summit of the mountain the road seemed easy, through oak forests, the whole way to Hillisat; but this part of the journey was made in a blinding snow storm, and little could be seen. We reached the snow line just after getting to the top, and shortly afterwards the snow began to fall.

There was a descent for some distance before reaching Hillisat, where a stream was crossed, and a slight ascent for 100 yards or so, made to village.

We had to halt here a day as the people said we could not possibly get on through the snow.

(11) *Hillisat to Mirza Mahomed Taki*, 4 farsacks.—Started with guides from village, and had a difficult journey through the snow ‡; muleteers very anxious to stop on the road in a cave. I made them go on; and we got in to Mahomed Taki on river bank (under a cliff) just as it was getting dark.

I had to lighten my loads for this journey, and make my party walk, giving each man a piece of raw hide to tie over his boots and form a sort of snow-shoe.

I should say that this march is quite impracticable for ordinary caravans for at least two and a half months.* The people who live in those parts say it is dangerous even for them and that men lose their lives in trying to cross in bad weather.

* Some Bakhtiaris recently come from Char Mahal say it is open now (7th January 1891) and is closed for about a month.

If there were caravanserais at short intervals and constant traffic daily, the road might be kept open, just as the Kohrud beyond Soh is. I have seen four feet of snow on the Kohrud, and am told it has been known to be deeper.

From daily use the path over the snow forms into a ridge of ice, rising gradually with each fall of snow: mules seem to cross the ice causeway very well, though they do sometimes get off it into the snow, when there is a difficulty.

† After this climb the deepest snow along this road was met on a small plateau.

There is a steepish climb about half-way† and a descent to Mahomed Taki, but they are neither extremely hard to encounter.

‡ No snow here but there was just immediately above the place.

Mahomed Taki ‡ is about 2½ miles from Dupulan, on the opposite side of the stream.

(12) *Mirza Mahomed Taki to Ardal*, 2 farsacks, or a little more.—Path good for mules, till the ascent from the gorge to the Ardal Valley had to be made, when the climb was stiff for half an hour or so; the Ardal Valley was covered with snow two inches deep.

This is an easy march with the exception of the climb above-mentioned.

(13) *Ardal§ to Garhu*, 7 farsacks.—To Nargun, the path over frozen snow was up and over a hill for two-thirds of way; then there was a slight descent to the village. The road was rather slippery. From Nargun to near Cha the snow was deep, but there was a path through it. (There had been no path over snow from Hillisat to Mahomed Taki.)

§ Here is another road, a short cut over a mountain which was impracticable owing to snow.

This march was fairly easy.

(14) *From Garhu to Kava Rukh*, 6 farsacks.—Road was easy, over a path through the snow.

Snowed up here for two days. We were the guests of Isfendia Khan.

(15) *Kava Rukh to Bist-i-Gun*, 5 farsacks (Bisgun).—The first half of the road was through rather deep snow. Gurdan-i-Rukh was difficult, the snow being deep on it; nearly up to my horse's girth, in one or two places, just before getting to the "Kotal," fine snow was being carried like dust before the wind here.

(16) *Bist-i-Gun (Bisgun) to Isfahan*, 8 farsacks.—Easy the whole way, through slight snow: about two inches of snow was on the ground about Isfahan.

I consider 20 farsacks or about 80 miles of the road from Shuster may in fine weather be called difficult, viz.,—

1. The zigzag on to the Gul Gir plateau.

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2. From Gul Gir to Mal-i-Mir plain.
3. From Mal-i-Mir plain to Godar-i-Balutak, on Karun river.
4. A short piece immediately after leaving Godar-i-Balutak.
5. From Deh Diz to Rudbar is mostly steep; either way a stiff ascent and descent are encountered, but not rough as a rule.
6. Rudbar to mountain above it.
7. Perhaps some of the way from Hillisat to Dupulan.*
8. Dupulan gorge to Ardal plateau.

* This march was so buried in snow I could hardly say what it was like in fine weather, but it seemed as if it would be very easy for mules.

A road for wheels is at present quite out of the question over the above portions of the route.

A good mule road is required, and then it would be the easiest way to reach Isfahan from the Persian Gulf.

EDWARD BRUCE, *Major,*

19th Bengal Lancers.

P.S.—Lieutenant McSwiney, 7th Dragoon Guards, will send in perhaps a more detailed report, as he took notes the whole way with that view.

E. B.

ISFAHAN, PERSIA :

The 7th January 1891.

The above was written before the route from Dizful and Shuster *via* Shimbar and Chilau and Kala Bazuft Valley had been reported on, which is undoubtedly the shortest and could be made the easiest with very little trouble or expenditure.

SIMLA :

1st November 1891.

W. D. McSWINEY, *Lieut.,*

7th Dragoon Guards.

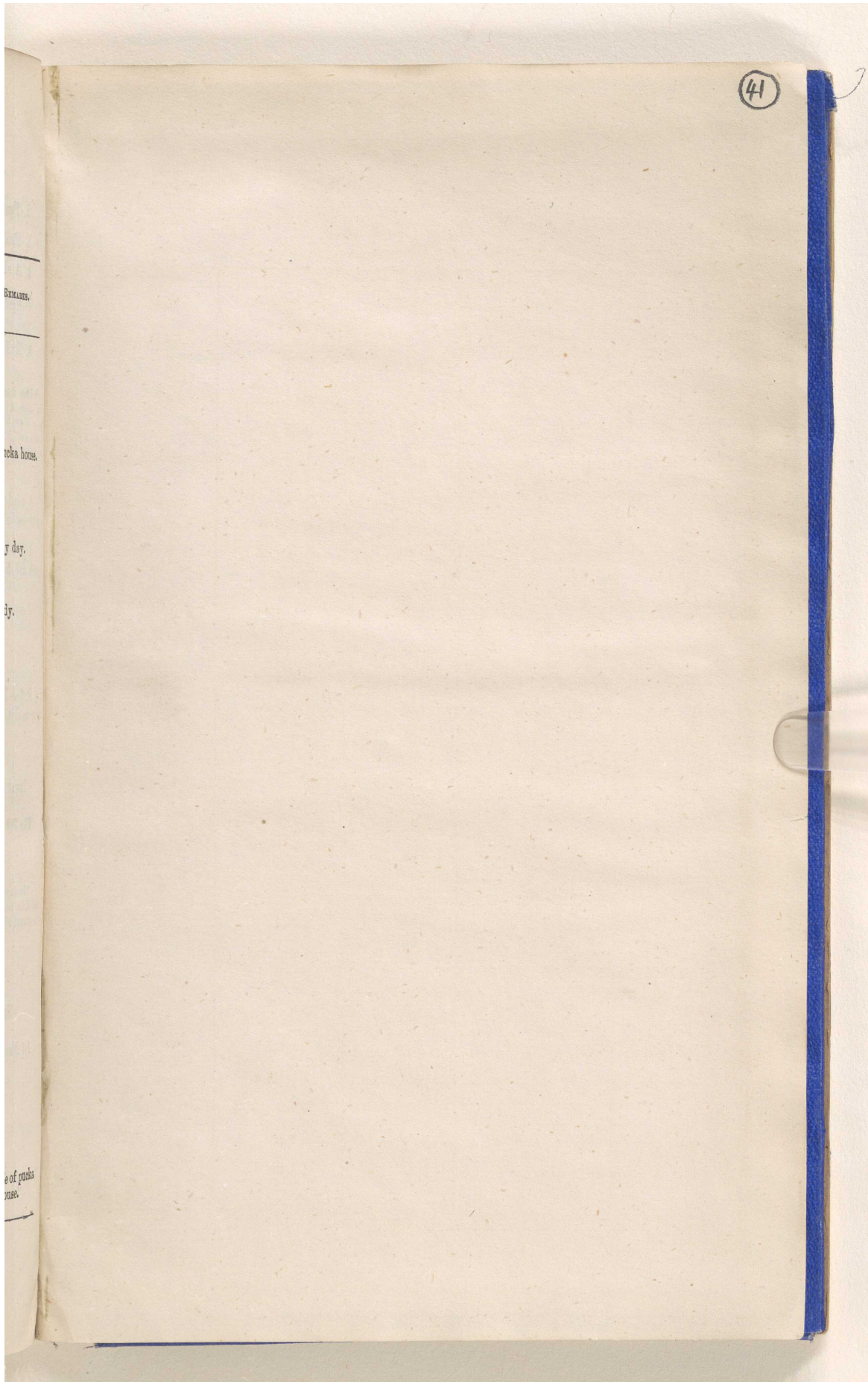
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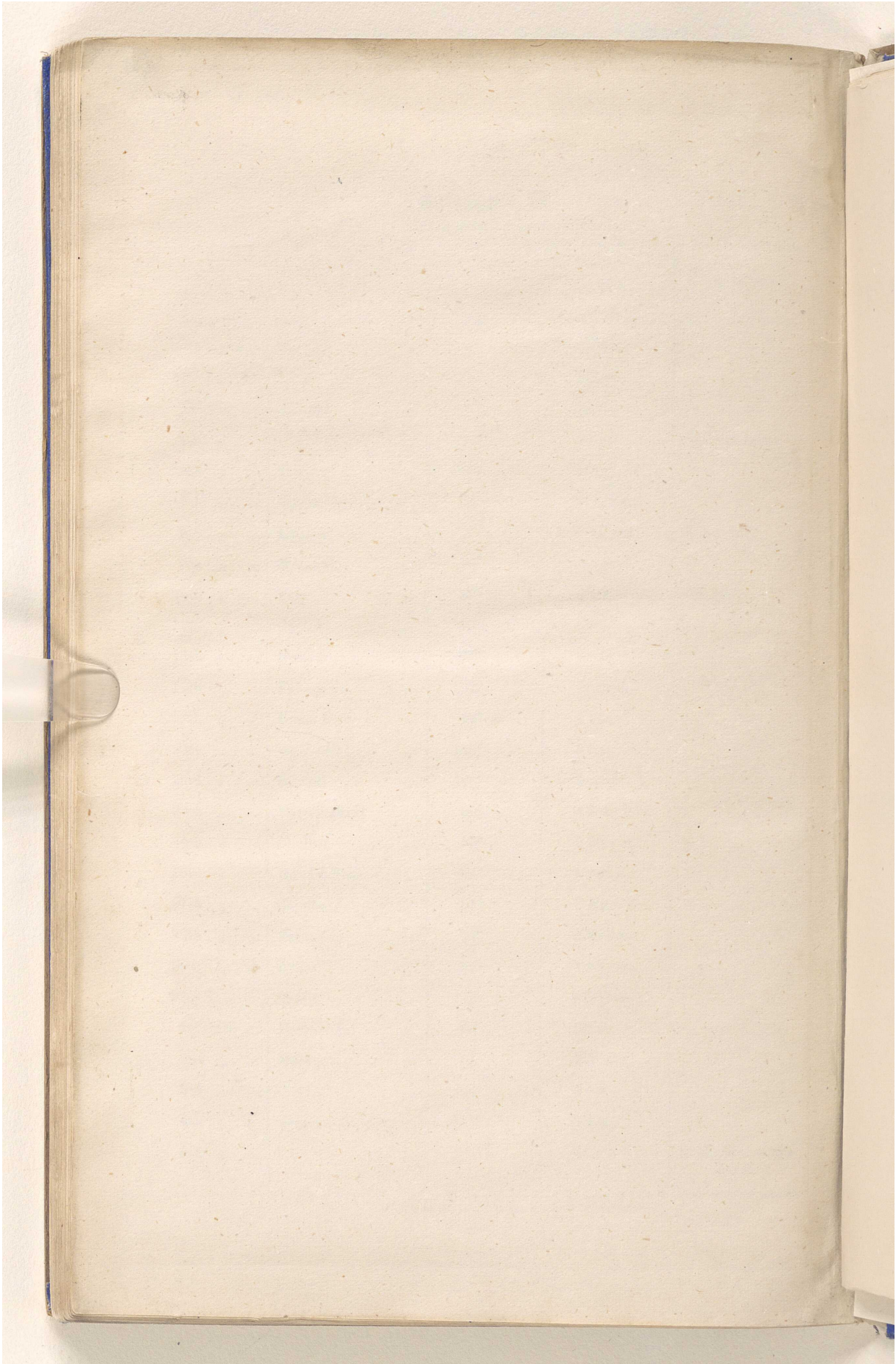
Appendix B.

Temperatures.

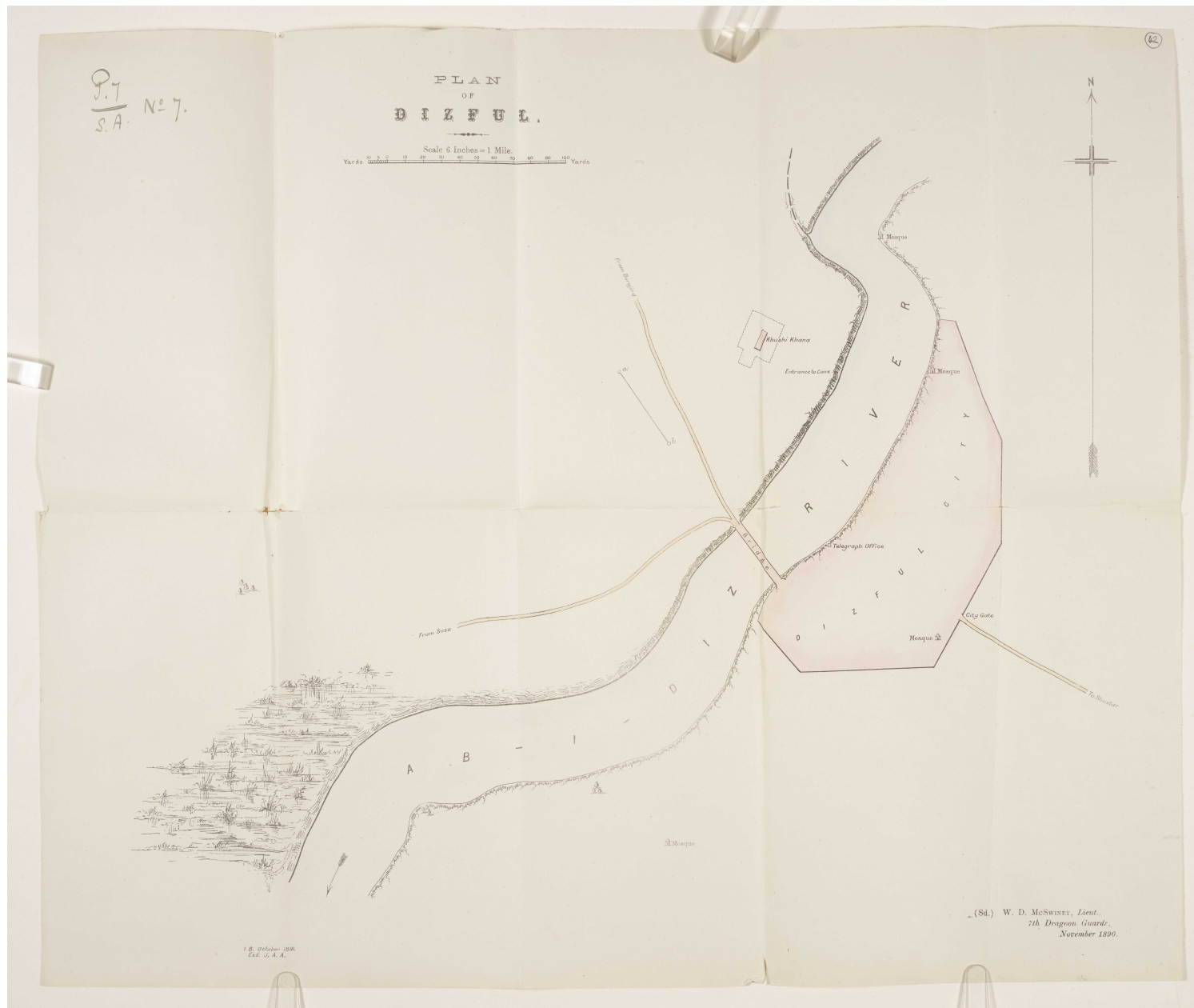
Date.	Place.	Temperature.	Time.	REMARKS.
29th April ...	Shustar ...	80°	10 A.M.	
30th " ...	" ...	81°	10 A.M.	
3rd May ...	Ab-i-bid ...	87°	3-30 P.M.	
4th " ...	Dizful ...	82°	11 A.M.	In pukka house.
6th " ...	Tabiran ...	95°	1 P.M.	
7th " ...	Duma Kail ...	92°	2-30 P.M.	
8th " ...	Khan-i-Sufid ...	78°	1-30 P.M.	Rainy day.
9th " ...	Nurabad ...	75°	3 P.M.	
10th " ...	Para ...	67°	3 P.M.	Cloudy.
11th " ...	Chullun ...	75°	4 P.M.	
12th " ...	Nukdar ...	79°	3 P.M.	
13th " ...	Pul-i-Kul ...	91°	12 noon.	
19th " ...	Duma Kail ...	92°	1 P.M.	
20th " ...	Sar-i-dasht ...	103°	3 P.M.	
23rd " ...	Salwati ...	100°	4 P.M.	
24th " ...	Dar-i-Babadi ...	99°	4 P.M.	
25th " ...	Chulbar ...	90°	3-30 P.M.	
26th " ...	Haud-i-Nau ...	84°	1 P.M.	
27th " ...	Shimbar ...	99°	2 P.M.	
28th " ...	Taraz ...	84°	2-30 P.M.	
29th " ...	Susan ...	99°	1-30 P.M.	
31st " ...	Shallar ...	103°	2-30 P.M.	
1st June ...	Dasht-i-Gul ...	98°	2 P.M.	
2nd " ...	Mashgari ...	97°	2-30 P.M.	
3rd " ...	Chiti ...	104°	5 P.M.	
4th " ...	Chaman Yorgha ...	111°	3 P.M.	
5th " ...	Shustar ...	108°	1 P.M.	In shade of pukka house.

G. C. Press, Simla.—No. C-6 Q. M. G., I. B.—13-1-92.—25.





'PLAN OF DIZFUL' [42r] (1/2)



'PLAN OF DIZFUL' [42v] (2/2)



