(1) பக்கங்களின் எண்ணிக்கை 42
(2) புதுக்கித் திருப்பிய நாள் Jan 90
(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம்

தமிழ்நாடு ஆவணக் காப்பகம்.

143

தமிழ்நாடு அரசு

P. W. D. துறை

அரசாணை எண். மு. கோப்புத் தாள் எண்.	3367	அச்சகம் பலவகை
நாள் :	26-11-1889 ~~198~~.	

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

21. Sheets

ஆவண கா-1—18,006—15-6-87.

3367

13th October 1887, No. 2694 W., Public Works.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

Read—the following papers:—

From Brigadier-General E. FAUNCE, Quartermaster-General, to the Secretary to Government, Public Works Department, dated Ootacamund, 20th August 1887, No. 2946 A.

As early in June no plan and estimate for the new coal store for the Ordnance Department at Madras, which had been provided for in the current year's budget, had reached this office, inquiries regarding them were made. These elicited the fact that the preparation of the plan, &c., had been delayed because no site for the building had been selected up to date, the delay in this being accounted for by the fact that the Superintending Engineer, V Circle, apparently considered that it was incumbent on the Inspector-General of Ordnance to have a site selected and to inform him of its position, while the Inspector-General of Ordnance understood that the Superintending Engineer was moving in the matter, inasmuch as, presumably under his orders, the Executive Engineer, in November last, had communicated with the Inspector-General of Ordnance about a site and mentioned one which subsequently the latter officer informed the Superintending Engineer was unsuitable.

2. As delays of this nature tend to retard execution of works at the proper time, and consequently to upset calculations in connection with expenditure under budget allotments, the Commander-in-Chief considers that measures should be taken to prevent them, and therefore desires me to submit, for your consideration, his opinion that, having distinctly been ordered to send in plans and estimates for this work, amongst others proposed for execution in the current year,* it was incumbent on the Superintending Engineer, V Circle, to have taken definite steps towards the essential preliminary of having a site fixed, and to have made a report of the fact, should he have found that, owing to circumstances beyond his control, in connection with this preliminary, the submission in due time of the plans and estimates, for which he was responsible, would be delayed.

* *Vide* proceedings of Government, No. 2497 W., dated 25th September 1886.

No. 472 D.

Referred, in continuation of No. 432 D., dated 17th August 1887, to the Superintending Engineer, V Circle, for early report.

Ootacamund,
23rd August 1887.

(Signed) J. O. HASTED, Colonel, R.E.,
Secy. to Govt., P.W.D.

From Colonel H. M. VIBART, R.E., Superintending Engineer, V Circle, to the Chief Engineer, Public Works Department, dated Bangalore, 29th August 1887, No. 2226.

In returning your endorsement, No. 472 D., dated 23rd August 1887, I have the honor to state that the preparation of the plan and estimate for the proposed coal store has been delayed not only on account of the site not having been selected, but also for want of information as to the quantity of coal the proposed building would be required to hold. This information, called for from the Military Department on the 22nd January 1887, was received only on the 26th July 1887.

2. I should also mention that some correspondence which took place between the Inspector-General of Ordnance and the Superintending Engineer as to the site and size of the proposed coal store ended with the Superintending Engineer informing the Inspector-General of Ordnance, on the 9th February 1887, that the "Public Works Department will make no objection to use of the Vyasurpady powder magazine as the Ordnance coal shed if it is thought by the Inspector-General of Ordnance to be suitable." This left the matter in the position as if the proposal for a new coal store was likely to be departed from, and it was not until the 26th July 1887, or after the lapse of more than five months, that the intimation was received from the Military Department that "the Ordnance Department state that the Vyasurpady magazine is too inconveniently situated to be of use."

3. It will be seen from the above that the Public Works Department is in no way to blame for the delay complained of by the Military Department in this matter.

No. 520 D.

Copy of the above forwarded to the Quartermaster-General, with reference to his letter, No. 2946 A, dated 20th August 1887.

2. It will be seen from the Superintending Engineer's letter that the Public Works Department is not responsible for the delay complained of.

2nd September 1887. (Signed) J. O. HASTED, Colonel, R.E.,
Secy. to Govt., P.W.D.

From Colonel H. McLEOD, R.A., Inspector-General of Ordnance, to the Quartermaster-General, Ootacamund, dated Fort St. George, 10th September 1887, No. O/8215.

Adverting to your No. 3145 A, dated 6th instant, forwarding copy of a letter from the Superintending Engineer, V Circle, to the Secretary to Government, Public Works Department, through Eastern District, I have the honor to inform you that the letter, stated by the Superintending Engineer to bear date 9th February 1887, containing a proposal to the Inspector-General of Ordnance to the effect that the Public Works Department would have no objection to the utilisation of the Vyasurpady magazine as a coal store, does not exist in this office records, nor indeed is there any letter at any time containing such a proposal.

No. 3258 A.

True copy forwarded, for information, with reference to memorandum, No. 520 D., dated 2nd instant, from the Secretary to Government, Public Works Department.

(By Order.)

Ootacamund,
13th September 1887. (Signed) E. FAUNCE, Brigdr.-Genl.,
Quartermaster-General.

No. 578 D.

Copy forwarded to the Superintending Engineer, V Circle, with reference to his letter, No. 2226, dated 29th August 1887, for further inquiry and report.

19th September 1887. (Signed) J. O. HASTED, Colonel, R.E.,
Secy. to Govt., P.W.D.

From Colonel H. M. VIBART, R.E., Superintending Engineer, V Circle, to the Chief Engineer, Public Works Department, dated Chepâk, 21st September 1887, No. 2587 :—

With reference to your memorandum, No. 578, dated 19th September 1887, I have the honor to enclose a copy of the last three papers connected with the correspondence with the Inspector-General of Ordnance regarding site and size of the proposed coal store.

Enclosures.

From Colonel W. H. BURTON, R.E., Superintending Engineer, V Circle, to the Inspector-General of Ordnance, dated 8th February 1887, No. 5541.

With reference to your letter, No. O/15085, dated 29th January 1887, I have the honor to request you to hasten the information called for concerning site and capacity of proposed coal shed.

2. The Quartermaster-General is calling on Public Works Department for plans and estimates, but no progress can be made until site and size of shed are known.

Telephone message from the Inspector-General of Ordnance, to the Superintending Engineer, V Circle.

His letter No. 5541, dated 8th.
I thought it was arranged that the Vyasurpady magazine should be utilised as a coal shed.

Reply by telephone to Inspector-General of Ordnance.

Public Works Department will make no objection to use of the Vyasurpady powder magazine as the Ordnance coal shed if it is thought by Inspector-General of Ordnance to be suitable.

9th February 1887. (Intlled.) W. H. B.
Suptg. Engr., V Circle.

Order—dated 13th October 1887, No. 2694 W., Public Works.

The above correspondence relates to delay, brought to notice by His Excellency the Commander-in-Chief, in the preparation of plans and estimates for a coal store for the Ordnance Department at Madras.

2. The work was entered in the list of military requirements circulated with G.O., No. 2497 W., dated 25th September 1886, in which Superintending Engineers were instructed to "lose no time in submitting the necessary plans and estimates for the works included in the schedules." It was subsequently provided for the unsanctioned works in the budget estimate published with G.O., No. 1161 W., dated 28th April 1887, with the following remark entered against it: "Estimate is awaited."

3. The Superintending Engineer explains that the preparation of the plan and estimate for the work was delayed "not only on account of the site not having been

selected, but also for want of information as to the quantity of coal the proposed building would be required to hold." This information seems to have been* called for from the Military Department on the 22nd January 1887, or four months after the orders of Government, of September 1886, quoted above. But† previous to this, in November last, the Executive Engineer would seem to have been in communication with the Inspector-General of Ordnance in regard to the site, though nothing definite was decided. There were also some telephone messages between the Superintending Engineer and the Inspector-General of Ordnance in February, which were subsequently lost sight of in the Inspector-General's office.

4. His Excellency the Commander-in-Chief considers that the responsibility for the delay rests with the Superintending Engineer, inasmuch as he failed to take definite steps towards the settlement of a site or to report to higher authority the delay which was taking place.

5. Matters were, no doubt, in the opinion of His Excellency the Governor in Council, retarded by the manner in which references were replied to or overlooked by the Inspector-General of Ordnance, but the Superintending Engineer, being responsible to Government for the preparation of the plans and estimates and the utilising of the budget grant, should not have allowed the subject to drift in the way he did.

6. The papers do not show whether the requisite preliminaries have even now been settled.

7. The Superintending Engineer will see that no further delay occurs.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Superintending Engineer, V Circle.
" Military Department.

Exd. E. Fernandez.
Spare Copies

---

* *Vide* paragraph 1 of Superintending Engineer's letter, No. 2226, dated 29th August 1887.

† *Vide* paragraph 1 of Quartermaster-General's letter, No. 2946 A, dated 20th August 1887.

3367

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of {1887} Madras.

PUBLIC WORKS.

Dated October, 13th.

Recd. *Encl.*

G.O., 13th Oct. 1887, No. 2694 W.

OCTOBER.

Coal Store for the Ordnance Department at Madras

Orders on correspondence relative to the delay in the submission of plans and estimates for a —.

20th October 1887, Nos. 2806, 2807 W., Public Works.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

Read—the following papers :—

> From Colonel W. H. BURTON, R.E., Superintending Engineer, V Circle, to the Chief Engineer, Public Works Department, dated Balu Chetty Choultry, 26th November 1886, No. 4349.

In accordance with paragraph 1 in G.O., No. 2928, dated 6th November 1886, I have the honor to report on the points referred to in Government of India Military Department letter No. 1607 M.W., dated 25th October 1886, as to the site selected for the proposed magazine, viz., on the berm outside the ramparts. In May 1884 a committee, composed of Major Brereton, R.A., Deputy Inspector-General of Ordnance, Major Shortland, Commanding Royal Artillery, Eastern District, and myself (then officiating as Superintending Engineer, V Circle) was assembled, under the orders of the Brigadier-General Commanding the Eastern District, to select a site; this committee recommended (I am writing from memory) the interior of St. George's bastion, making use of the existing casemates on the right face as the main chamber of the magazine. But this site was apparently disapproved of, for the same committee was afterwards directed to select the next best site outside the fort, and it recommended as such one somewhere near the St. Andrew's Cemetery on the island. As Executive Engineer, Presidency Division, I was subsequently instructed by the Deputy Assistant Quarter-master-General to prepare a design and estimate for the magazine to be built as shown on the drawings now disapproved of.

2. The Inspector-General, Ordnance, Madras, in March 1885, informed me that this latter site had been approved of by the Director-General of Ordnance in India, sending me a copy of the latter officer's letter, No. 2157, dated 9th March 1885.

3. *As to objection II.*—This is inevitable, and is partly owing to the site and partly to the desire to render the foundations as economical as possible; the height and consequently the exposure (objection III) of the brick-work of the western and southern walls of the magazine could only have been reduced by largely extending in area and consequently by increasing the cost of the foundations, as also by increasing the cost of the whole work.

4. *As regards objection III.*—I would state that, from the land side, it has been held that Fort St. George is not to be considered, and has not in recent years been dealt with, as a fort liable to attack by a force provided with rifled guns, or in fact with artillery other than cast-iron smooth-bore guns.

5. The thickness of the western and southern walls are, I submit, ample to render the powder to be stored perfectly safe from such gun-fire from anywhere west or south of the proposed work. To have protected these two walls in the usual way by a long sloping earth-bank would have led to several disadvantages and obviously to the impossibility of ventilating the main chamber freely through these walls.

6. *Objection IV.*—The lighting of a magazine by means of lamps in recesses in the walls, access to which is obtained by an open passage, is only peculiar in the proposal "to leave the passage open overhead in time of peace," but this passage was intended to be covered in, and provision was made for covering it in efficiently and very readily in time of war as efficiently as if it was permanently covered in. This peculiarity was proposed in view of the damp, hot, close climate of Madras and of the proved unfitness of the numerous old casemates in the fort when closed in on all sides for the storage of powder. If this lighting passage is covered in permanently, the magazine could not be efficiently ventilated through its eastern and northern walls.

7. *Objection V.*—The costliness of the foundations limited in area as they are is inherent to the site, in the selection of which no one in our department had anything to do; the nature and dimensions of the foundations provided for are, I believe, the least costly and the least possible. Every detail connected with them I freely discussed with Colonel Prendergast, and he approved of these details, &c.; the cost of other foundations, as on piles for instance, was fully tested before the brick well foundations were included in the design.

8. *Objection VI.*—As to the probability of the ventilating arrangements proving inefficient, this is foreseen in the specification and description attached to the estimate "as possible" (I attach a copy for ready reference), but I would remark that if ventilating a powder chamber in the authorised and usual way by means of hollow walls and shutters and through all its four walls is likely to be inefficient, how very surely bad would the ventilation be if there were no openings at all through any one wall, and yet the objections raised to the details of the design involve the abandonment of hollow walls and of free access to the interior of the magazine of fresh air from the outside.

9. *Paragraph 3, Government of India letter under reference.*—The highest water level in the wet ditch surrounding the proposed site has never been known to exceed 3·60 feet above mean sea level, and the berm selected for the site has never, so far as I can learn or have observed, been known to have been covered with water, nor is it apparent to me how it (the berm) can be submerged, for the height of water in the ditch always, and necessarily highest during the north-east monsoon, can be regulated by means of a sluice provided for the purpose, and any unusual flood can be so let out into the adjacent river Cooum. Lest it should be ascertained that the Cooum rises above this level, I would state with the confidence of 5½ years' intimate knowledge of it that this river cannot be induced to rise to the level 4·20 above mean sea level.

10. It is, as you are aware, very desirable for sanitary purposes connected with the town of Madras that the Cooum should be allowed to rise to this height before the bar is cut, but it wont under any conceivable circumstances. Moreover, it is not absolutely necessary that the river should, nor is it ever the case that it does, remain at the level of even 4·00, for by cutting the bar the river falls to about 1·50 at high water mark and it sinks to a lower level than that immediately the bar is again closed. The plan shows 4·00 as the level of the berm, and the specification reads thus "the footings" (*i.e.*, the portion of brick foundation below the level of the floor) "of the walls will be built . . . . up to 12 inches above present level of the berm, or 1·50 feet above high water mark in main ditch during north-east monsoon," as before the time of maximum heights of water in the main ditch is during the north-east monsoon and is consequent on the fact that the rainfall within the crest of the glacis (the Madras Harbour has long since closed all access of the sea to the ditch) alone affects the level of the ditch; the sea has nothing to do with it. Of course if ever there occurs at Madras a cyclone in any degree, similar to that which submerged Masulipatam in 1864, the water in main ditch might even exceed the level 7·75; but the water could not otherwise reach the level 7·75 nor exceed 4·20, but as before it never exceeds 3·60, and the floor of the magazine would consequently be free from risk of flooding at 3·60 + 1·50 or at the level 5·10 above mean sea level.

11. Para. 3 of the Government order under reference will be shortly attended to.

ENCLOSURE.

EXTRACT from the Specification to accompany estimate for constructing magazine for accommodation of Ordnance Artillery reserve powder at Fort St. George, dated 2nd April 1886.

*   *   *   *

On the concrete the footings of the walls will be built in the usual manner up to 12 inches above the present level of the berm, or 1·50 feet above high water mark in main ditch during the north-east monsoon.

*   *   *   *

3367

Ventilation.—It is believed that reasonably sufficient means have been provided in the drawings and estimates to ensure that the ventilation of the building can be regulated by the Ordnance officer in charge as above described; but as the regulations so referred to were originally drafted to meet the conditions of a magazine built at Halifax in British North America, and as different conditions of atmosphere, temperature, &c., exist in Madras, especially so in any building, situated as this will be, in the angle formed by two high walls where bad ventilation will probably be caused rather by stagnation of air than from any great difference between temperature of outside and inside air; to meet this stagnation of air, should it be not sufficiently provided against by the several hollow walls and outside openings thereto, it is proposed to build in the west wall of the magazine two horizontal circular holes 2½ feet diameter at about 4 feet above floor level, against which can be afterwards fixed a 2 feet Blackman's patent air propeller as in diagram; this air-pumping machine could be worked by manual labor with some simple cogged wheel apparatus made for the purpose; the total capacity in air space of the interior is under 27,175 cubic feet.

*   *   *   *

(True Copy.)

(Signed) W. H. BURTON, Colonel, R.E.
Superintending Engineer, V Circle.

From Brigadier-General E. FAUNCE, Quartermaster-General, to the Secretary to Government, Military Department, dated Ootacamund, 27th June 1887, No. 2267 A.

Referring to G.O., No. 7155, of 15th November 1886, I am desired by the Commander-in-Chief to submit the accompanying proceedings* of a committee assembled at Fort St. George, on the 27th December 1886, under the orders of His Excellency, to report upon the improvements necessary to the Fort magazine for the storage of powder required for the armament.

2. His Excellency concurs in the recommendations of the committee for the proposed utilisation of the Saint Thomé casemates and for the improvements thereto, and to Saint George's magazine, at a cost of Rs. 33,000 and Rs. 18,000 respectively, and desires me to submit them for the sanction of Government.

* With two rough estimates and three plans.

ENCLOSURE.

St. George's Magazine.—Recommendation of the Committee for making the magazine bomb-proof.

Side wall on the east to be thickened to a total of 18 feet 6 inches by means of the best rough stone masonry in lime mortar as shown on plan and section herewith attached.

Ventilation and powder barrel racks and entrances, &c., to remain as now.

Overhead cover: the west side and end walls to be thickened as shown, so as to form foundations for a parapet wall to retain extra covering to the arch and the old lime concrete on top to be notched out; each hundred cubic feet of this extra covering to consist of 15 cubic feet best Portland cement, 87 cubic feet of clean sand and broken granite, and 33 cubic feet of granite blocks as per specification attached; 3 feet thick over the crown, and 4½ and 6½ feet thick over the haunches of the arch.

This again to be covered with well rammed clay out of a tank-bed as per section.

Approximate cost Rs. 18,000.

(Signed) W. H. BURTON, Colonel, R.E.,
Superintending Engineer, V Circle.

PROCEEDINGS of a Committee held at Fort St. George on the 27th December 1886 and subsequently, pursuant to His Excellency the Commander-in-Chief's order as conveyed in Quartermaster-General's letter, No. 4537 A., dated 9th December 1886.

President.

Major-General A. C. JOHNSON, C.B., Commanding Eastern District.

Members.

Colonel H. McLEOD, R.A., Inspector-General of Ordnance.
Brevet-Col. and Lieut.-Col. W. H. BURTON, R.E., Suptdg. Engr., V Circle.

The committee having assembled, pursuant to the above order, at the Inspector-General's office in the fort, proceed to inspect several of the casemates which, from their position and

5

present general state of repair, appeared to be best suited to be converted into reserve powder magazine, and the three existing magazines—Caldwell's, St. George's, and the Grand.

2. The committee also perused the correspondence, &c., relating to the subject of storage of powder in bomb-proof magazines in the fort.

3. In regard to paragraph 4 of the Quartermaster-General's letter, clause I, the quantity of powder required for service at or about the fort will be as follows :—

	BARRELS.
Ordnance reserve for 6–9″ M.L R. guns now mounted	611
Ordnance reserve for the guns of the armament of Fort St. George revised in accordance with Proceedings of Government, No. 6854, dated 29th October 1880	471
Ordnance reserve for 6–10″ B.L.R. guns now being constructed ...	4,500
Total ...	5,582

Clause II.—The accommodation available in existing magazines is, so far as racks (old style) are concerned, as follows :—

	BARRELS.
St. George's Magazine	1,800
Caldwell's do.	1,266
Grand Magazine now racked for small arm ammunition but might be racked for	1,700

Clause III.—The committee do not think it advisable, on account of position as regards both and on account of its condition as regards Caldwell's magazine, to utilise either the Grand or Caldwell's magazine, but would recommend that St. George's magazine be put into a thorough state of repair and made bomb-proof in accordance with memorandum regarding it enclosed.

Clause IV.—The accommodation elsewhere available for reserve ammunition of the revised armament of Fort and Beach batteries is at Veyasarpaudy, The Mount, casemates in St. Thomé curtain in the fort.

4. The committee do not think it advisable to again utilise the Veyasarpaudy magazine on account of its isolated and unguarded position and the defective state of the building as per reports received by the Quartermaster-General for several years past.

5. The committee do not think it advisable to utilise the large reserve magazine at the Mount for the following reasons :—

(*a*) It is 9 miles from the fort and over 10 from the Clive's battery.
(*b*) There are but two main roads to it, one crossing two rivers by large bridges and other minor streams, the other crossing three rivers by large bridges and other minor streams.
(*c*) It is only 4 miles from the sea.

6. The committee would point to the directions (in the present necessity of which they fully concur) issued to the Officer Commanding Troops at the Mount when His Excellency Sir Frederick Roberts was Commander-in-Chief at Madras to the effect that, in the event of trouble being imminent, the ordnance powder stored in the Grand magazine at the Mount would have to be destroyed or withdrawn to Madras.

7. The committee think, however, that if the casemates in St. Thomé curtain, east of the St. Thomé gate of the fort, were put into a thorough state of repair and made bomb-proof in accordance with memorandum regarding it enclosed, it could hold 3,782 barrels.

Clause V.—The probable cost of the work described for St. George's magazine will be Rs. 18,000, and Rs. 33,000 for St. Thomé curtain.

8. As regards the necessity or not of building a new magazine, the committee would point out that there is no available site for such other than that on the berm of the Wallajah curtain already condemned.

(Signed) A. C. JOHNSON, Major-General, C.B.,
Commanding Eastern District, President.
(") H. McLEOD, Colonel, R.A.,
Inspector-General of Ordnance. } Members.
(") W. H. BURTON, Colonel, R.E.,
Superintending Engineer, V Circle.

Casemates in St. Thomé Curtain.—Recommendations of the Committee for rendering the casemates, east of St. Thomé gate, fit for reception of the powder barrels.

Floor to be covered with asphalte on a suitable under-surface.

Side walls on north and east to be thickened to a total of 10 feet by means of the best brickwork laid in Portland cement mortar.

Ventilation of the interior to be afforded—first, by means of 12″ wide zigzag openings, one in each of the existing doorways, which are to be built up also with the best Portland cement brickwork ; second, by means of 12″ diameter zigzag air shafts to be driven through the arched roof and made in the overhead concrete during the laying of the latter.

Powder racks to be as shown in the drawing—two rows in each rack ; 3½ feet passages between rack and north wall and the 2 racks ; 4 tiers of barrels to rest on suitable flooring batteries ; and 4 tiers on upper transoms ; all racks to be divided longitudinally so as to contain 5 barrels in each tier.

A light moveable floor in two lengths of 12 feet each to be laid at the level of 4″ tier across the 3′ 6″ passages at any particular section of the racks to facilitate the magazine men handling and lowering stacking to the barrels ; also 5 light ladders to be provided for examination of the upper barrels.

Lighting the powder chambers to be by means of lamp recesses made in the walls of lighting passage, closed on the powder chamber side by the usual brass and plate glass frames, as already provided in the Beach batteries, Agram, &c.

Entrance to the powder chambers to be by means of an entrance lobby to each chamber provided with wood, barrier, seats and other facilities for magazine men shifting their clothes before entering the powder chamber.

Overhead cover : the earth over the arch to be removed and a thickness of 3 feet of Portland cement concrete laid flat thereon in 12″ layers ; each hundred cubic feet concrete to be composed of 15 cubic feet best Madras cement, tested in the usual manner to take a breaching strain of 800 lbs. per 2½ square inches, 87 cubic feet of clean broken granite and coarse sand, fresh or sea water, 33 cubic feet of clean rubble stone in large blocks.

The Portland cement concrete, &c., to be covered with ¾″ asphalte properly sloped to keep out damp from overhead and earthwork free from building debris 2½ feet thick to be laid and rammed and covered with gravel over the asphalte.

Lightning-conductors to be by means of two long 1½″ × ⅛″ copper bands running along rear and front parapet walls on top and lead it each end into a wet earth terminating in sheet copper-plates each 12 feet in area.

Upper terminals by means of ½″ diameter copper uprights 5 feet long placed at 24 feet intervals along the two 1½″ bands and brazed, &c., thereto.

Approximate cost Rs. 33,000.

N.B.—All the brass and copper fastenings and wood racks in the Veyasarpaudy powder magazine should be carefully preserved by the Public Works Department for utilisation at the St. George's and St. Thomé powder magazine.

(Signed) W. H. BURTON, Colonel, R.E.,
Superintending Engineer, V Circle.

No. 3934, Military.

Transferred to the Public Works Department, with reference to Proceedings of Government in that department, No. 2928 W., dated 6th November 1886.

2. The Government in the Military Department concur in the views of His Excellency the Commander-in-Chief as expressed in paragraph 2 of the Quartermaster-General's letter.

(By Order.)
(Signed) A. KENNEY-HERBERT, Brigdr.-Genl.,
Secretary to Government.

Ootacamund,
4th July 1887.

No. 2288 C., Public Works.

Forwarded, with reference to G.O., No. 2928 W., dated 6th November 1886 to the Superintending Engineer, V Circle, for very early submission of detailed estimates of the cost of carrying out the committee's recommendations.

(Signed) J. O. HASTED, Colonel, R.E.,
Chief Engineer, Public Works Department.

7th July 1887.

From Brigadier-General E. FAUNCE, Quartermaster-General, to the Secretary to Government, Military Department, dated Ootacamund, 3rd August 1887, No. 2718 A.

I have the honor, by order, to forward, for sanction and transfer to the Public Works Department for disposal, the estimates, plans, &c., below mentioned, which have been approved by the Commander-in-Chief. The plans and estimates have been countersigned:—

Abstract and detailed estimates, amounting to Rs. 17,000, for adapting St. George's magazine in Fort St. George for the storage of powder for the fort armament, with report, specification and six plans.

2. An allotment of Rs. 17,000 has been made for this work in the current year's budget—*vide* O.G., No. 1160 W., of 28th April 1887, (M.D., No. 2867, of 16th May 1887).

No. 4746, Military.

Approved and transferred to the Public Works Department for disposal.

(By Order.)

OOTACAMUND,
6th August 1887.

(Signed) A. KENNEY-HERBERT, Brigdr.-Genl.,
Secretary to Government.

From Colonel H. M. VIBART, R.E., Superintending Engineer, V Circle, to the Chief Engineer, Public Works Department, dated Pelandorai, 30th September 1887, No. 2651.

I have the honor to return, as asked for in your telegram of 23rd August, the seven enclosures received with your memorandum, No. 2288 C., dated 7th July 1887, viz.:—

(1) Military Department endorsement, No. 3934, of 4th July 1887, on Quartermaster-General's letter.
(2) Proceedings of Committee on Fort Magazines.
(3) Memorandum of proposed improvements to St. George's Magazine.
(4) Memorandum of proposed improvements to casemates in St. Thomé curtain.
(5) Plan of St. George's Magazine.
(6) Section of do.
(7) Plan and section of casemates in St. Thomé curtain.

ORDER—dated 20th October 1887, No. 2806 W., Public Works.

Ordered that the Government of India be addressed.

(Here enter No. 2807 W., dated 20th October 1887.)

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Superintending Engineer, V Circle.
„ Military Department.

LETTER—to the Secretary to the Government of India, Military Department, dated Chepâk, 20th October 1887, No. 2807 W.

In reply to your letter No. 1607 M.W., dated 25th October 1886, returning plans and estimates for a proposed new magazine on the Wallajah berm, Fort St. George, I am directed to forward the undermentioned documents:—

(1) Letter from the Superintending Engineer, V Circle, No. 4349, dated 26th November 1886, stating the circumstances in which the site on the Wallajah berm was selected, and submitting observations in reply to the objections to the design raised in paragraphs 2 and 3 of your letter.
(2) Proceedings of a committee assembled to report on the measures necessary to improve the Fort magazine and to provide additional accommodation for the storage of powder.
(3) Plans and estimate, amounting to Rs. 17,000, for improvements to the Fort magazine.

3367

2. In view of the objections raised by the Government of India to the construction of a new magazine on the Wallajah berm, it has been decided to abandon the proposal and to strengthen the existing St. George's magazine in the Fort. To provide the additional storage accommodation required, the committee recommend that the casemates in the St. Thomé curtain of the Fort be thoroughly repaired and rendered bomb-proof. It will be seen that the committee do not recommend the adoption of the suggestion of the Government of India that the powder which cannot be stored in the Fort magazine should be kept at St. Thomas' Mount.

3. I am now directed to submit the proposals of the committee for the consideration of the Government of India, and to request that, if approved, the plans and estimates for strengthening the Fort magazine may be returned as early as practicable in view to the current year's grant of Rs. 17,000 for the work being fully utilised. Estimates for improving the casemates in the St. Thomé curtain are under preparation, and will be sanctioned by this Government if the proposals of the committee be approved by the Government of India.

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

Exd. J. Moses.
Spare Copies

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of (1887) Madras.

PUBLIC WORKS.

Dated October, 20th.

Recd. *Encl.*

G.O., 20th Oct. 1887, Nos. 2806, 2807 W.

OCTOBER.

Powder Magazine in Fort St. George

Proposals for the improvement of the existing — and the provision of additional accommodation for the storage of powder, submitted for the consideration of the Government of India.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

Read—the following papers :—

From Brigadier-General E. FAUNCE, Quartermaster-General, to the Secretary to Government, Military Department (through Inspector-General of Ordnance), dated Ootacamund, 2nd August 1887, No. 2692 A.

A sum of Rs. 9,000 having been allotted in the current year's budget for the erection of a new coal store for the Ordnance Department at Madras, the Inspector-General of Ordnance recommended that the building should be placed between the Goanese Cemetery and the Body Guard Riding Schools on the Island, a site which he considered the most convenient with reference to the Beach, the Arsenal, and the Gun Carriage Factory.

2. This site, however, is part of that which, in 1886, Government declared not to be available,* and moreover the Medical authorities consider that the location there of a coal store would probably be attended with inconvenience to the inmates of the General and Military Hospital which are not far distant, and into which coal dust would be liable to be carried, when any quantity of coal is being moved, by the southerly winds which prevail for a great part of the year.

3. Under these circumstances, it has been suggested that, in the absence of a suitable central site, which unfortunately cannot be found, sufficient ground for the purpose be acquired from the proprietor of the land on which the old Vepery lines once stood in the neighbourhood of the Gun Carriage Factory, and I am accordingly desired to submit this suggestion for the consideration and early orders of Government.

No. O/G-60.

Forwarded.

Fort St. George,
9th August 1887.

(Signed) H. McLEOD, Colonel, R.A.,
Inspector-General of Ordnance.

No. 4896, Military.

Transferred to the Public Works Department for favor of necessary action with reference to paragraph 3 of the Quartermaster-General's letter.

(By Order.)

Ootacamund,
11th August 1887.

(Signed) A. KENNEY-HERBERT, Brigdr.-Genl.,
Secretary to Government.

---

* Proceedings of Government, No. 1025, of 16th February 1886.

No. 432 D.

Referred to the Superintending Engineer, V Circle, who will ascertain and report, as early as practicable, whether a suitable site on the land indicated in paragraph 3 can be acquired, and if so, on what terms.

OOTACAMUND,
17th August 1887.
(Signed) J. O. HASTED, Col., R.E.,
Secretary to Government, P.W.D.

From Colonel H. M. VIBART, R.E., Superintending Engineer, V Circle, to the Chief Engineer, Public Works Department, dated Bangalore, 15th October 1887, No. 2856.

With reference to your endorsement, No. 432, dated 17th August 1887, I have the honor to forward, in original, a letter from Mr. C. V. Cunniah Chetty, No. 321, dated 30th September 1887, together with a letter, No. 2754 of 8th August, written to him by the Deputy-Assistant Quartermaster-General, Eastern District.

2. It will be seen that Mr. Cunniah Chetty is not willing to sell any portion of his land near the Gun Carriage Factory for the erection of a coal shed, as he thinks that the value of the old buildings there now tenanted will be thereby depreciated.

3. Mr. Cunniah Chetty is, however, willing to sell the whole of the ground immediately adjoining the Gun Carriage Factory, colored yellow in the accompanying plan, including the buildings thereon, viz., the old place of arms, measuring 197′ × 43′, three Staff Sergeants' quarters, each 50′ × 43′, and two ranges of out-houses for the latter, measuring 76′ × 15′ and 40′ × 15′ for Rs. 52,150, *i.e.*, Rs. 25,000 for the buildings and Rs. 27,150 for the land (90½ grounds at Rs. 300 per ground).

4. The price asked for seems a little too high considered in connection with the object in view, viz., a site for a coal shed, but the acquisition of the land and the buildings by Government will be attended with advantage.

5. The place of arms might be enclosed by a boundary wall and converted into a coal store, and the three Staff Sergeants' quarters occupied by the Sergeant Instructors of the Volunteer Corps, for whom quarters have to be provided outside Fort St. George (see your memorandum No. 40 D., of 25th April 1887).

6. The price asked for might, I think, be fairly reduced to Rs. 12,000 for the three bungalows with out-houses at Rs. 4,000 each, and Rs. 7,000 for the place of arms, in all Rs. 19,000 for the buildings (it would cost fully Rs. 30,000 to construct similar building) and Rs. 22,625 for the land at Rs. 250 per ground, or Rs. 41,625 for the buildings and land.

7. At present Government are renting a coal shed for Rs. 100 per month; this, at 4 per cent., represents a capital of Rs. 30,000. Rupees 15 each per month for rent for quarters for the three Sergeant Instructors of the Volunteer Corps is equivalent to a capital of Rs. 13,500. It has been found impossible to obtain quarters for the Sergeant Instructors in a fairly healthy locality under Rs. 25 to 30 per month, so that what Government are now paying as rent for a coal shed, and would have to pay for hired quarters for the three Sergeant Instructors, would represent a capital of Rs. 52,500. If the property offered by Mr. Cunniah Chetty can be purchased for Rs. 41,625, the amount would be profitably laid out.

No. 3565 C.

Referred to the Military Department for favor of information whether His Excellency the Commander-in-Chief advocates the purchase of the land and buildings as suggested by the Superintending Engineer. If so, an application will be made to the Government of India for a special allotment of funds.

(Signed) J. O. HASTED, Colonel, R.E.,
19th October 1887.
Secretary to Government, P.W.D.

No. 6511, Military.

Referred to His Excellency the Commander-in-Chief for favor of opinion.

(By Order.)

FORT ST. GEORGE,
24th October 1887.
(Signed) A. KENNEY-HERBERT, Brigdr.-Genl.,
Secretary to Government.

From Brigadier-General E. FAUNCE, Quartermaster-General, to the Secretary to Government, Military Department, dated Ootacamund, 5th November 1887, No. 4258 A.

In returning the papers and plan received under reference, G.O., No. 6511 of 24th ultimo, I am desired to state that the Commander-in-Chief advocates the purchase of the land and buildings on the old Vepery lines, as suggested by the Superintending Engineer, V Circle, in connection with a site for the coal store for the Ordnance Department at Madras, and considers that their acquisition will be cheap at the price fixed by the Superintending Engineer.

No. 6877, Military.

Transferred, and the previous papers returned to the Public Works Department.

(By Order.)

FORT ST. GEORGE,
7th November 1887.
(Signed) A. KENNEY-HERBERT, Brigdr.-Genl.,
Secretary to Government.

No. 4021 C.

With reference to his letter, No. 2856, dated 15th October 1887, the Superintending Engineer, V Circle, is requested to ascertain whether Mr. Cunniah Chetty is willing to accept the terms mentioned in paragraph 6, viz., Rs. 19,000 for the buildings and Rs. 22,625 for the land at Vepery, or Rs. 41,625 in all.

2. A very early reply is requested.

(Signed) J. O. HASTED, Colonel, R.E.,
11th November 1887.
Chief Engineer, Public Works Department.

From Colonel H. M. VIBART, R.E., Superintending Engineer, V Circle, to the Chief Engineer, Public Works Department, dated Chepák, 10th December 1887, No. 3807.

With reference to your memorandum, No. 4021 C., dated 11th November 1887, I have the honor to forward letter, No. 333, dated 1st December 1887, from Mr. Cunniah Chetty, stating that he is willing to accept Rs. 41,625 for the land and buildings at Vepery, which the Government propose to purchase.

ORDER—dated 16th December 1887, No. 3441 W., Public Works.

Ordered that the Government of India be addressed.

(Here enter No. 3442 W., dated 16th December 1887.)

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Superintending Engineer, V Circle.
" Military Department.

Letter—to the Secretary to the Government of India, Military Department, dated 16th December 1887, No. 3442 W.

No. 3441 W., dated 16th December 1887.

I am directed to forward a copy of the proceedings of this Government, marginally noted, and to state that, in the absence of any other suitable site for a coal store, urgently required by the Ordnance Department, this Government propose to purchase, for Rs. 41,625, a piece of land at Vepery with certain buildings thereon. The land is a portion of the site of the old Native Infantry lines at Vepery, and the buildings thereon consist of the former regimental place of arms, and three Staff Sergeants' quarters. It was at first proposed to purchase only sufficient land to serve as a site for the coal store, but the owner of the property agrees to sell only on the condition that the whole of the plot, colored yellow on the accompanying site plan, be taken by Government. It will be seen from the correspondence that the old place of arms can with little alteration be converted into a coal store, and that the three Staff Sergeants' quarters can be utilised as quarters for the Sergeant Instructors of the local Volunteers, while the Government will obtain possession of a valuable building site for future purposes. Considering the high cost of land in the locality in question, the price agreed upon is thought to be moderate, and I am to express a hope that the Government of India will approve the purchase.

2. A sum of Rs. 9,000 has been provided in the Madras Military Works Budget for 1887-88 for the construction of a coal store, but, owing to the difficulty of finding a site, no expenditure has been incurred against that grant. I am now to request that the Government of India may be moved to sanction a special allotment of Rs. 32,625, which, with the Rs. 9,000 already available, will enable this Government to complete the purchase.

3. The favor of a reply by wire is requested.

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

Exd. J. Moses.
Spare Copies

BUILDINGS AND ROADS.
MILITARY WORKS.

Gobt. of {1887} Madras.

PUBLIC WORKS.

Dated December, 16th.

Recd. *Encl.*

G.O , 16th Dec. 1887, Nos. 3441, 3442 W.

DECEMBER.

Coal Store for the Ordnance Department, Madras

Submitting for approval proposal to purchase a piece of land at Vepery with buildings thereon for utilisation as a —, and requesting a special allotment to complete the purchase.

1889.

P. W. DEPARTMENT.

3367

Current No. 4990

tter
From

The S. E. V. Circle

ENCLOS.— 1

No. 1419
Dated 1-6-89
Received 3-6-89

SUBJECT.

Veyasarpady Expense Powder Magazine

Forwarding with remarks application of Messrs Best &co., Madras, to purchase or rent the —.

DISPOSAL.

No. 3172 Dated [illegible]

Referred to the Mily: Dept: for favor of intimation whether there is any objection to the sale of the building. (By order)

Sd W. L. C. B.
D. W.

3367 4990

D.W.

For orders.

It is presumably an Imperial building.

F.D.B.
6/6/9.

The G.O. quoted does not appear to contain a proposal for using the Vyasarpady Magazine as a coal store. There is I think another G.O. on the subject.

6.6.89

RU

Please trace & put up.

F.D.B.
6.6.9

SRW.

Please see G.O. No 2694 W of 13/10/87 put up.

S.P.
6/6/89

To D.W.

12

4990

R.H. 3367

Please complete the file. There must be a lot of corres^ce^ about this old building.

J.D.B.
4/6/9

Saw
Please see clause IV of Committee's Report printed with G.O. No 2806 W. of 20/10/87 in the linked file — If a spare copy is wanted I shall have it put up.

B.P.
6/6/89

S.A.W.
Refer C.N. 4990 to the Mil^y^ Dept. If they do not require the building a further reference can be made to the Govt of India

7.6.89

13

2694 w a/ 13-10-87

3441/3442 w d/ 16-12-87

2806/2807 w d/ 20-10-87

C No 8936 / A 110 25.11.89

B 2723 W / 27.9.89

11 27/9

19

Recd 13/6/89

Regr No 2380 S
25 MAY 89 29-5-89

BEST & CO.

5
3

Nobel's Explosives Company Ld.

Madras, 22 May 1889.

3367

The Executive Engineer
Presidency Division

Sir,

In continuation of our letter of 13th instant and in reply to your No 192 dated 11th instant, we have the honor to inform you that we have inspected the Veysurpaudy Magazine and are writing home to our Correspondents this week to know if they will authorise us either to buy or rent it.

I [In the event of our renting it we presume the Government would put and maintain the buildings &c in good repair.]

II [We have also to request you to let us know whether in case of an explosion taking place we should be held liable for the value of the buildings.]

We have the honor to be
Sir
Your obedient servants
Best & Co
Agents

No 269 S.E.
28-5-89
Forwarded in original to S.S.E.V with a request that he will be good enough to inform U.S. what replies he may send Messrs Best & Co to their queries marked I and II

E M Thompson
Ex Engr
E.E. Ps. Dn.

To be returned

25 MAY 89

15

EXECUTIVE ENGINEER'S OFFICE
P. W. D.
27 MAY. 89
PRESIDENCY DIVISION

Dms 560
20/6/89

Dms 4930
7/8/89

3367

SUPERINTENDING ENGINEER'S OFFICE,
V Circle, Madras,
Chepâk, 1st June 1889.

No. 1419.

From
Colonel W H Burton R.E.
SUPERINTENDING ENGINEER, V CIRCLE,

To
THE Chief Engineer
P. W. Department.

SIR,

Enclosures One - to be returned

a large walled in shed
—
a Sergeants Quarters
—
a Guard Room.
—

With reference to enclosed application from Messrs Best & Co Madras to purchase or rent the old buildings Veyasurpaudy which surrounded with a high earthen traverse, is known as the Veyasarpady Expense Powder Magazine. I have the honor to state that it is not wanted by any Deptt.

2. It has been for some considerable time vacated as a Powder Magazine for which it was always eminently unfit. No Department is likely to occupy or has applied for its occupation - it was suggested as an Ordnance Coal Store by Coll Vibart See G. O. No. 3441 W 26/4 dated ~~16 December~~ 13 October/87 but is too distant as such.

G. O. 6524. M 24-10-87

16

3

3. Its book value is Rs 22,540

3 The experience acquired by this Department is such that I would not venture on any responsibility as to maintaining the buildings in good repair if let on any terms - it is so far removed from all buildings as to render harmless any explosion of any known explosive (Messrs Best probably intend to store dynamite in it) I would therefore propose to offer it for sale for Rs 7000 with right of access × and boundary to be that of the outside edge of surrounding moat.

× over existi
Military Ro

I have the honor to be
Sir
Your Most obedt Servt.

H A Burton
Col R.E.
Supt 9: Engineer
Circle

3367

17

E.O. No. 2674 W 13-10-87
3441.42 W 16-10-87
2806 W. 7 W - 20-10-87

No. 317 D d/ 13 June/89.

Referred to the Mily: Dept: for favor of intimation whether there is any objection to the sale of the building.

(By order)

W. C. Baddeley Captn. R.E.

Under Secy: to Govt: P.W.D

Recd. 8th 12. 6. 89

REQUESTED TO BE RETURNED WITH REPLY.

Ootacamund
14th June 89.

No. 3889. Referred to His Excellency the Commander-in-Chief.

A. Kenney Herbert Br. Genl
Secretary to Government Mily Dept

To the Quarter Master Genl

6-7-6-89

Edd. 14 6 89

Mily 1889 / Deptt

Mily 4990

From

No 4479 8936/8

The Supg: Engineer
5th Circle

To from the P. W. Dt

The Chief Engineer
P. W. Department.

of 13 June

R 14 - -

Dated 1st } June 1889.
Recd. 3 }

Encl. 1

No. 1419.

Veyasarpady Expense Powder Magazine.

Forwards application of Messrs. Best & Co. Madras to purchase or or Rent the

Mwo 560
6/6/89

Mwo 4930
7/8/89

Referred

Mily 831 A.W.

Mily 562 A.W.

Form No. 7 B.

3367

HEADING *Buildings.*
Appropriation.

It is requested that the heading, number, and date of this communication may be quoted in any subsequent correspondence on this subject.

QUARTER MASTER GENERAL'S OFFICE,
Ootacamund,
13th September 1889.

No. 1021 Barrack.

From

BRIGADIER-GENERAL M. PROTHEROE, C.B., C.S.I.,
QUARTER MASTER GENERAL,

To

THE SECRETARY TO GOVERNMENT,
MILITARY DEPARTMENT.

SIR,

In returning the documents received with Reference Order No. 3889 of the 14th June last, I am desired to say that there is no objection on the part of His Excellency the Commander-in-Chief, to the disposal of the building known as the Vegasarpady Expence Powder Magazine, as proposed therein, on the understanding that the right of access over existing Military roads is reserved, and that the boundary of the property be that of the outside edge of the moat surrounding the building.

I have the honor to be,
Sir,
Your obedient Servant.

M. Protheroe Brig.-General.
Quarter Master General.

18

P.W. Cnc. 8936

Pd 24.10.87 No. 6521 B

Military (1889) Department.

No. 6700

From

The Quarter Master General,

To

The Secretary to Government,

Military Department.

No. 1021. Barrack.

Dated 13th }
Received 16th } September 1889.

Recd: 23.9.89

G.O. 2694W d/ 13.10.87
" 2806W d/ 20.10.87
" 3441W d/ 16.12.87

Enclosures. 2.

Stating that, on one condition, H.E. the Commander-in-Chief, has no objection to the disposal of the building known as the Vepsarpady Expense Powder Magazine

Separate Order

No 6470

Transferred to the Public Works Department with the remark that there is no objection in the Military Department to the sale of the buildings in question on the conditions stated.

The referred papers are herewith returned

[illegible] Colonel
for Secretary to Govt.
Mily. Dept.

Fort St. George }
21st September 1889 }

No 2723 W d/ 27 Septr. 1889

SECRETARY TO GOVERNMENT
23 SEP. 89
P.W. DEPARTMENT, MADRAS.

17/9

St W/8

No 2723 W

B

Hyde.

3367

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

27 Septr. 1889

Read the following

From the Supg: Eng: V.C. No. 1419, dated 1st June 89.
From the Military Dept " 6470, dated 21st Sep: 89.

The Supg: Engr: will inform Messrs: Best & Co. that the buildings known as the Vepsarapady Expense Powder Magazine are not for hire, but the Govt. is prepared to consider any reasonable offer that may be made for the purchase of the buildings – the book value of which is Rs: 22,540 – on the conditions named in the letter from the Quarter Master Genl above recorded.

Xes
2blp

To The Supg: Engr: V.C.
" Military Dept D 27/9

25.9.89

20

FB.

25.9.89

12/[illegible]

Sale of the old Powder Magazine at Veysarap[illegible]

~~H.M.~~

No. 2723 W.2/27th Septr. 89

B. [illegible]
J. [illegible] 27/9

H.W. 25.IX.89

12/10 - 160

3367

SUPERINTENDING ENGINEER'S OFFICE,
V CIRCLE, MADRAS,
Chepák, 20th Novr. 1889.

No 5588

From Colonel W H Burton R.E.
SUPERINTENDING ENGINEER,
V CIRCLE,

To
THE Chief Engineer
P.W. Department.

SIR,

Enclosures

2

With reference to G.O. No 2733 W dated 27 September 1889, I have the honor to state that Messrs Best & Co. are not prepared at present to make any offer for the purchase of the Veysarpaudy Powder Magazine.

I have the honor to be
Sir
Your Most Obedt Servt
W H Burton
Col. R.E.
Supdg: Engineer 5th Circle

21

P.W.C. No. 11121

From

THE SUPERINTENDING ENGINEER,
V CIRCLE,

To

THE Chief Engineer
P.W. Department

Dated 20
Recd. 22 } November 1889.

SECRETARY TO GOVERNMENT, 22 NOV ... RTMENT, MADRAS.

ENCLOSURES.

No. 3367 W d/26-11-1889

No. 5588.

Veyasarapaudy Powder Magazine

States that Messrs Beck & Co. is not prepared to offer for the purchase of

(21) With order

GO 3441.42 W d/16.12.87
" 2806.7 W d/20.10.87
" 2694 W d/13.10.87
" 2723 W d/27.9.87

~~Dex~~

No. 3367 W d/26-11-89

B

Hes
24 Nov

Recorded.

23.11.89

S.E. V Circle

Military dept. D 27/11

ACC 28/11

D 28/11

Hw 23.XI.89
R 257