(1) பக்கங்களின் எண்ணிக்கை 44

(2) புதுக்கித் திருப்பிய நாள் 21/10/90

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம்

தமிழ்நாடு ஆவணக் காப்பகம்.

34

தமிழ்நாடு அரசு

P.W.D. துறை

அரசாணை எண்.
மு. கோப்புத் தாள் எண். 2820 / 2821

அச்சகம்
பலவகை

நாள் : 26-10-1891 198

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

19 சங்க

22 Sheets
Pn. அரசாணை
Nos 5, 6, 7 missing.

-ஆவண. கா-1—18,006—15-6-87.

2820-21

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Account.

READ—the following paper :—

From I. S. SHERLOCK-HUBBARD, Esq., Officiating Examiner of Public Works Accounts, to the Secretary to Government, Public Works Department, dated Madras, 9th October 1891, No. 6154/211.

To enable me to furnish the certificate prescribed in Madras Public Works Code, Appendix G, page 99, para. 14, in respect of the accompanying and undermentioned indent received from the Superintending Engineer, V Circle, with his No. 450 W. of 6th October 1891, please inform me whether it is the intention of the Government to provide the necessary funds, and, if so, in what year, and how much in each year.

2. If the stores are for Imperial services and funds are to be provided from the budget of a year not yet begun, please state whether the previous sanction of the Government of India has been obtained to the proposed allotment of funds as required by Code, Appendix G, foot-note on page 99.

3. Indent for a set of Parson's detachable boring tools 8 inches in diameter with 400 feet tubing for Local and Municipal department for use in the Municipal towns.

4. Required from England.

Office-note from the Examiner, Public Works Accounts, dated Madras, 20th October 1891, No. 6388/153.

The accompanying letter from the Superintending Engineer, V Circle, to the Chief Engineer, Public Works Department, No. 450 W., dated 6th October 1891, with an indent (No. 9 of 30th September 1891), for English stores for transmission to the Secretary of State is forwarded for necessary action.

2. I certify that funds to meet the estimated outlay in England in connection with this indent during the year 1891–92 will be provided by the local Government to the extent of £613–5–0 in the estimate of the Public Works Department for that year.

ENCLOSURE.

From Major D. McNEIL CAMPBELL, R.E., Superintending Engineer, V Circle, to the Chief Engineer, Public Works Department (through the Examiner, Public Works Accounts), dated Chepâk, 6th October 1891, No. 450 W.

In returning the enclosures of your No. 3860 C., dated 28th August 1891, and your endorsement No. 4104 C., dated 15th September 1891, I have the honour to forward an indent on the Director-General of Stores in England for a set of Parson's detachable boring tools 8 inches in diameter with 400 feet tubing.

ORDER—dated 26th October 1891, No. 2820 W., Public Works.

Ordered that the indent for Parson's detachable boring tools be forwarded to the Home Government for compliance.

2. A sum of Rs. 7,956 is allotted from the Provincial reserve with the Government to the Public Works Stores division under tools and plant to meet the cost of the indent.

(Here enter No. 2821 W., dated 26th October 1891.)

(True Extract.)

Major, R.E.,
Under-Secy. to Govt., P.W.D.

To the Superintending Engineer, V Circle.
" Examiner, Public Works Accounts.
" Local and Municipal Department.

Exd. S. J. Pereira.
Spare Copies

2820-21
2

GENERAL.
ACCOUNT.

Govt. of {1891} Madras.

PUBLIC WORKS.

Dated October, 26th.

Recd. *Encl.*

G.O., 26th Oct. 1891, No. 2820 W.

OCTOBER.

Parson's detachable boring tools

Indent for —, ordered to be forwarded to the Home Government.

2820-21/3

26TH OCTOBER 1891, No. 2821 W., PUBLIC WORKS.

PUBLIC WORKS DEPARTMENT.

General.
Account.

LETTER—from

COLONEL J. PENNYCUICK, R.E.,
Secretary to the Government of Madras,
Public Works Department,

To

THE DIRECTOR-GENERAL OF STORES,
INDIA OFFICE,
LONDON.

SIR,

I am directed to forward, for favour of very early compliance, an indent for Parson's detachable boring tools required for experimental purposes in this Presidency.

I have the honour to be,
Sir,
Your most obedient servant,

Colonel, R.E.,
Secretary to Govt., P.W.D.

FORT ST. GEORGE,
26th October 1891.

Exd. S. J. Pereira.
Spare Copies

GENERAL.
ACCOUNT.

Govt. of {1891} Madras.

PUBLIC WORKS.

Dated October, 26th.

Read. *Encl.*

G.O., 26th Oct. 1891, No. 2821 W.

OCTOBER.

Parson's detachable boring tools

Forwarding indent for —.

Special Indent &c

Accompaniment to Public Works Department Circular No. XV of 1882.

No. _____

2820-91/5

INDENT FOR STORES required for the Public Works Department in the ~~Province of~~ Madras Presidency for the service of the Indian Government.

I HEREBY certify that the Stores enumerated in this Indent are absolutely required for the service of the Public Works Department ~~for a period of _____ months, and I further certify that I have, by a personal inspection of Books and Stores, satisfied myself that they comprise that least possible quantity necessary for the above period.~~

Dated this _____ day of _____ 189 .

at _____.

Signature _____

Rank Secretary to Govt. P.W.D.

NOTE.—1. In cases in which a personal inspection of Books and Stores cannot be made, the portion of the Certificate relating thereto should be scored through.

2. The Indent should be paged, and the signature attached to the last line of the Indent.

Received by the Director-General of Stores in England the _____ *day of* _____ 189 .

Annual Indent on England for Stores required for the Local and Municipal Departments in the Madras Presidency

Names of Articles.	Revenue* to which cost is chargeable.	Imperial head of account or grant to which cost is chargeable.*	Established proportion.	How established proportion is calculated.	Number or quantity in Store on ———	Number or quantity due on previous Indents.	Number or quantity now indented for.	Value: Of number or quantity due on previous Indents.	Value: Of number or quantity now indented for.	Remarks.	Number of Indents provided.	Proposed to be provided.	Remarks by the Director General of Stores.
one Detachable Boring									£-8-0				2820 A/5 / 6
to bore 8"													
Work for shear leg: set													
to purchase Crab with													
a large drum with brake							1		7-10-0				
about 200ft best wire													
ents to attach for Lewis													
pumps							1		10-0-0				
Strong double geared crab													
about 90 feet of ½" best													
Crane Chain with							1		20-0-0				
hooks and shackles													
square top rod with small													
" Rods with screwed ends							1		3-12-6				
small) in lengths of 10 feet each													
one Rods with screwed ends													
& nipple 10 feet long							40		2-17-0				
Augers with light steel													
Straps riveted on back							1		5-0-0				
ending Dogs													
at Vizagapatam							2		6-5-0				
per 8 cwt, and pumping							2						
fitted with steel cutting edges							3						
							1		7-7-0				
									211-13-0				

Carried over

—The red ink columns to be left blank for filling up in England.

* Imperial, Provincial, Local, Mysore, or Berar.

† This column should be left blank if the charge is not debitable to the Imperial Revenue.

Annual Indent on England for Stores requir

For Local and Municipal Department in the Madras

Names of Articles.	Revenues* to which cost is chargeable.	Imperial head of account or grant to which cost is chargeable. †	Established proportion.	How established proportion is calculated.	Number or quantity in Store on _____	Number or quantity due on previous Indents.	Number or quantity now indented for.	Rate.	Value of number or quantity due on previous Indents.	Value of number or quantity now indented for.	Remarks.	Shipped or under provision.	Proposed to be provided.	Remarks by the Director-General of Stores.
														2820-91/7
						Brought forward				211-13--				
ed Pump with hy/screw														
fastin to jumper bar and														
ted with valve							1	12-10-		12-10-				
rod clip forging to clip														
" rods							1	15-15-		15-15-				
ating Casting								2-12-		2-12-				
up flush inside and cut														
d with Steeled Shoe and														
Bar 8½" for Bore hole ft							400	0-14-9		295---				
ing and Protecting for														
Shipment										20---				
										57-10-				
						Freight payable in England				25-15-				
						Total £				613-5-0				

Certified that the Stores enumerated in the Indent are absolutely required and that they cannot be procured of Local Manufacture or from the Stores of other Departments Railways and Administrations.

Madras
2 September
1891

Dr Campbell Major
Supy Engineer & D

L. S. Mackenzie
Lieut. Supt. P.W. Store

B.—The red ink columns to be left blank for filling up in England.

* Imperial, Provincial, Local, Mysore, or Berar.

† This column should be left blank if the charge is not debitable to the Imperial Revenues.

14 h/a 35 2820-91 8

7TH JANUARY 1891, No. 15 M., LOCAL AND MUNICIPAL.

LOCAL AND MUNICIPAL DEPARTMENT.

LETTER—to

THE RIGHT HONORABLE THE SECRETARY OF STATE FOR INDIA.

MY LORD,

We are anxious to undertake boring experiments in view to supplying Municipal towns in this Presidency with good water at a cheap rate, and for this purpose we propose to employ the patent detachable boring tools invented by a Mr. Parson, which are to be procured from Mr. Edward Jackson, 110, Cannon street, London, E.C. These tools, of which we enclose a description, can, we understand, be worked with efficiency, cheapness and celerity. We have therefore the honor to request that your Lordship will be pleased to consult some expert in England as to the merits of the apparatus in the direction mentioned, and if the report made is favorable, we desire to obtain two sets of the plant sufficient to bore to a depth of 400 feet; but before transmitting an indent for them we wish to be advised of their estimated cost.

We have the honor to be,
My Lord,
Your Lordship's most obedient, humble servants,

(Signed) J. H. GARSTIN.
(„) H. E. STOKES.
(„) J. GROSE.

FORT ST. GEORGE,
14 h/a ~~7th~~ *January* 1891.

Exd. P. L. Pereira.

GOVT. OF FORT ST. GEORGE.

LOCAL & MUNL. (1891) *DEPARTMENT.*

LETTER to the Right Honorable the Secretary of State for India.

Dated ~~7th~~ 11th January,

No. ~~15~~ 35 M. of 1891.

Requesting that the opinion of some expert in England might be obtained on the merits of Mr. Parson's patent detachable boring tools and that, if it is favorable, the estimated cost of these tools might be ascertained and intimated.

Copy Report by the Consulting Engineer dated 2nd April 1891

There has been some difficulty in getting information on the subject of these tools as they are not known amongst the firms who usually supply such plant.

Mr. Jackson to whom I first wrote has gone abroad and Mr. Parsons the patentee to whom I then applied informs me that the tools have only been used at a few places in the Isle of Wight under his own supervision. He tells me that they work well and of course the fact that on his system the boring rods have not to be withdrawn is in its favour because it saves considerable time, whether there are countervailing disadvantages I cannot ascertain.

Mr. Parsons does not make the tools himself but he put me in communication with Messrs Ovenstbo, 9 Whitefriars Street, Fleet Street E.C. who make them under his supervision, and who have now sent me a schedule of particulars and prices for three sizes viz:- 6, 8 and 10 inches which I forward herewith. The cost of the apparatus is much less than that of ordinary boring tools and I should think a trial of it was quite worth making. The papers might be forwarded to India for consideration there.

2820-91
11

Whitefriars Street, Fleet Street,
London, E.C., March 20th 1891.

Sir A. M. Kendel K.C.I.E.
8 Great George Street,
Westminster

INDIA STATE RAILWAYS

Sir Alexander,

We refer to your favour of 12th February last to Edwd Jackson Esq, re Parsons pat. Detachable Tools. This letter Mr Parsons, after an interview with you handed us with a request to make out an Estimate for the Tools & Tubing necessary for sinking bore holes of 6" & 8" dia to 400 feet deep, and we have now the pleasure to enclose same.

Should you desire any further information we shall be glad to explain anything that may not be clear.

The system undoubtedly is one in which rapid progress can be made in boring.

We are, &c.

(Sd) S. Owen & Co.

2880-91
12

Whitefriars Street, Fleet Street,
London, 31st March, 1891.

P. W. Doig Esq,
8 Great George Street,
Westminster, S.W.

INDIAN STATE RAILWAYS.

re Parsons Detachable Tools.

Dear Sir,

We refer to our call upon you and now have pleasure to enclose an amended Estimate for the above.

We have shown the cost in ~~all~~ detail but as we have already expressed to you, with the exception of the brabo we do not see what part could be eliminated, as the various parts form one system and as to the crabo we provide one light one for shell work, and the heavier one for lifting the rods when necessary, and for working the Jumpers.

We remain &c.

(Sd) Sowens & Co.

4/

Parson's Detachable Boring Tools

2820 gj / 13

to Bore	6"			8"			10"		
1 Set of Iron work for Shear legs.	4	10	6	7	10	6	7	10	6
1 Single purchase crab with extra large drum with brake and about 500 feet best Wire rope with Shackle for Sand pump.	10	.	.	10	.	.	10	.	.
1 Extra strong double geared crab and about 90 feet of ½" best tested crane chain with hooks and shackle	20	..	.	20	.	.	20	.	.
1. 1⅝ sq. top rod with swivel	3	12	6	3	12	6	3	12	6
40. 10 ft. lens of 1⅝ sq. rods with screwed ends (female)	115	..	.	115	..	.	115	..	.
1.-10 ft. lens of 2" sq. rod with screwed ends and nipple	5	..	.	5	..	..	5	..	..
2. blay augers with light steel guide straps riveted on back	2" 10	10	..	3" 12	10	..	4" 15	..	..
2. Landing dogs & 3 hand wrenches	15	..	.	15	..	..	15	..	..
1.- 5 cwt Jumper and Jumping bar fitted with a steel cutting edge	23	..	.	23	..	.	23	..	..
1. Sand pump with nipscrew to fasten to jumper bar and fitted with valve	5" 10	..	..	7" 12	10	..	9" 15	..	..
1. 10½ Rod clip forging to clip ⅝" rods.	15	15	..	15	15	..	15	15	..
Rotating basting	2	12	..	2	12	..	2	12	..
	238	..	..	242	10	..	247	10	..
Packing & protecting for shipment	10	..	..	10	..	..	10	..	..
£	248	..	..	252	10	..	257	10	..

Tubes for Bore hole.

400 feet of Tubing flush inside & out fitted with steeled shoe & collar	6½" 234	..	..	8½" 295	..	..	10½" 335	..	..
Protecting for shipment	10	..	..	10	..	..	10	..	..
£	244	..	..	305	..	..	345	..	..

Sir A. M. Rendel. K.C.I.E.

No 3

Financial (Stores)

23rd April 1891

Copy
Letter to Fort St George

No 7

Pw 536/1869/91
1130/91

4500

Received 20 May/91

THE PATENT DETACHABLE BORING TOOLS.

2820 21/15



Fig. 1.

WILLIAM E. OWENS & CO. Engineers LONDON, E.C. BREAMS BUILDINGS, FLEET STREET

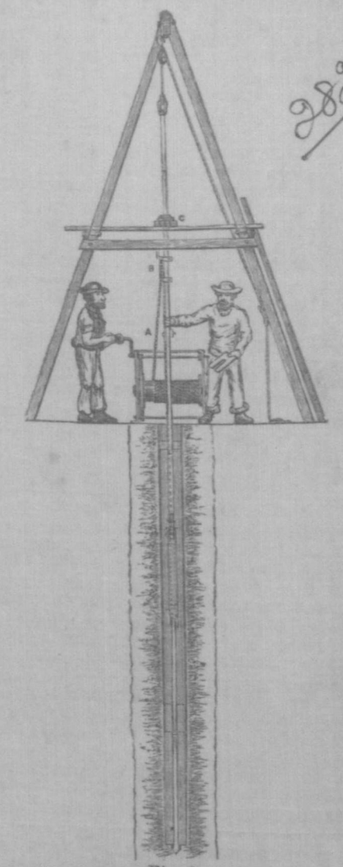


Fig. 2.

The accompanying woodcut Fig. 1, being a front, and Fig. 2 an end view, shows the mode of working the new tools (Parson's Patent) for making artesian tube well and other borings under the ordinary boring-rod system, but with the tools detachable and adapted for freely sliding up and down the full length of the rod with a simple arrangement for interlocking with same when in their position for boring, instead of their being fixed into and made a part of the rod, as has hitherto been the case. As the boring proceeds, therefore, and the tool takes up the bored debris until it is filled to choking point and necessitates withdrawal for the purpose of clearing, which is the case at every few inches penetrated, instead of having each time to lift the entire length of boring-rod, with its corresponding cumbersome weight, through a height equal to the total depth bored, and at the same time go through the tedious and time-losing operation of the unscrewing and disjointing the rod at about every 10ft. of its length, and re-connecting after the tool has been cleared whilst lowering again to its original position, the tool E only is removed, drawn up the rod by the chain A attached to the winch barrel or pulley, cleared, slipped down the rod by one man, and at work again in a few minutes, according to the depth through which it may have to be drawn.

The chain A, which is lengthened in 10ft. or 20ft. lengths at a time by special links, as the boring goes down, is taken off the winch barrel, to which it is hooked in its end link, hitched up in the bracket B on the rod, as shown, and goes round with same during the operation of boring; and being kept almost tight, its position is maintained, and does not get entangled or twisted with the rod.

On the occasion of withdrawal, the weight of the rods is taken, to prevent an unnecessary strain on the catch of the boring tools, and to allow a free passage for the tool up the bore-hole.

A great advantage in the use of these tools is that the same size of bore is maintained throughout; and the tools are arranged to cut the outside diameter of the tube through which they pass, thus enabling it to follow more readily and without driving. The jumper for hard substances and for giving rapid percussive blows is also an independent tool from the rod; it is about 6ft. in length, or more if necessary, and has a steel bit at its lower end. The mode of working the jumper is very simple and effective. It is attached by a small shackle to the chain A, which is passed twice round the winch barrel, heaved up a few feet and then slipped; or, by attaching two short ropes to the chain and a direct pull or lift given by the men.

It may be here mentioned, that, by this method of going through hard and rocky strata, a great saving of time and trouble is effected, compared with the laborious and destructive way of jumping with the whole length of rods, which is done on the old principle. The woodcut shows one mode of working the tools with a light trestle; but an arrangement equally simple is with shear legs without any platform, the casting for keeping the rod in its perpendicular position at C, figs. 1 & 2, being placed at ground level instead of as represented. The tools are readily worked by hand as shown, but are adaptable for working by engine power, if required. The machine has been, and is still being successfully used in the Isle of Wight; among the borings executed by it being one for Messrs. Francis & Son, Newport, to a depth of 475 ft.; for the Ryde Waterworks a boring of 245 ft. in depth, and several borings for the Brading Harbour Company, the last of which to a depth of 301 ft.

A 1 1,15.. 3 rms.—9/88. 1. 1141.

6400

It is requested that in any further communication on this subject the undermentioned letter and number may be quoted, and the reply addressed to

The Director General of Stores,
India Office,
Whitehall,
S.W.

S 12561.

India Office,
Whitehall, S.W.,
14 August 1891.

CHIEF SECRETT
03 SEP 91
GOVERNMENT

2580-91
16

Sir,

With reference to your letter of the 13 July 1891, no. 1078 M. Mis., I have the honour to return herewith the description of Parson's boring tools which accompanied your letter of 14 January 1891, and also copy of a later issue of the description, which has been obtained from Messrs Owens & Co.

I am,
Sir,
Your obedient Servant,
A. Burls
Director-General of Stores.

The Secretary to Govt.,
Local & Municipal Dept.,
Madras.

A Y 17137. 5 rms.—5/88. I. 1141.

LOCAL AND MUNICIPAL DEPARTMENT.

2296 h 91
57
9794
1113/91

From

The India Office.

No. S. 1256.

Dated 14-8-91.

Received 15-9-91.

Enclosures 2

SUBJECT.

Returning with reference to G.O. No. 1078 dated the 13th July 1891, the description of Parson's boring tools and a copy of a later issue of the description, which has been obtained from Messrs. Evans & Co.

For

Memo No 671/91. 5-10-91

2827/91

2827/91

2827/91

No 757

Transferred to the Public works Depart.t

in continuation of Endorsement 424th

August 1891 No 671.

W. W. Brodie

Asst. Secretary

15/9/91

for Secretary

14th September 1891

To The Public works Depart.t

No 4104 C. dt/15th September 1891

Forwarded to the Supdg Engr V Circle in continuation of mem.o 3760 C dt 28-8-91.

Return requested.

(Brodie)

W. W. Brodie

Asst. Secretary

Indexing & Tabulating

1 Letter with Endorsement.

19 Enclosures.

[C. No. ...]

J. S. Sherlock-Hubbard Esq

FROM ~~MAJOR C. H. P. CHRISTIE, R.E.,~~

07/7 EXAMINER OF P. W. ACCOUNTS, MADRAS.

10 2828/91 18

To The Secretary to Government P.W. Department

No. 6154 / 211 Madras, 9th October 1891.

Recd: 15-10-91

SIR,

Enclosure in Triplt

To enable me to furnish the certificate prescribed in Madras P. W. D. Code Appendix G, page 99, paragraph 14, in respect of the accompanying and undermentioned indent received from the Superintending Engineer 5th Circle with his No. 4501/W of 6-October 1891, please inform me whether it is the intention of the Government to provide the necessary funds, and if so in what year, and how much in each year.

2-If the stores are for Imperial services and funds are to be provided from the Budget of a year not before you please state whether the previous sanction of the Government of India has been obtained to the proposed allotment of funds as required by Code Appendix G footnote on page 99.

Indent for. 1 Set of Parson's deep bore boring tools 8 inches in diameter with 400' lining pipes complete.

Required from. Local and Municipal Department for use on the Municipal towns.

Required from England.

Vide G. O. No. 1078 of 1891 sanctioning estimate.

Certified
for Examiner
16-10-91

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

Major, R.E.,
Examiner of P. W. Accounts, Madras.

9/10 Br. (Encl 3) 9/10

24-4-90—100.

Encl to 4120 dt 19.6.91
" " 3860C dt 28.8.91
" " 4104 C dt 15.9.91
" " 4495 C dt 14.10.91

P. W. CURRENT No. 1113 (C. No. 52)

189/.

EXAMINER, P. W. ACCOUNTS.

2820 dt 21/10/91

Madras, 20 October 189/.

OFFICE NOTE No. 6388/153.

Enclos 11.

To E. W.

Recd 21.10.91

THE accompanying letter from the Superintending Engineer, 5th Circle, to the Chief Engineer, P. W. Department, No. 4501 W, dated 6th October 189/, with an Indent (No. 9 of 30 September 189/) for English Stores for transmission to the Secretary of State, is forwarded for necessary action.

2. I certify that funds to meet the estimated outlay in England in connection with this Indent during the year 189/-92 will be provided by the ~~Government of India~~ Local Government to the extent of £ 613-5-4 in the estimate of the P. W. Department for that year.

Draft C.
20/10
20/10

Enclosures. 5

150—16-4-91.

4495 C dy 14-10-91
4104 C dy 15-9-91
3860 C dy 28-8-91
412 D dy 19-6-91
Public Dept papers 3 files

2820-27/20

No 450 K

SUPERINTENDING ENGINEER'S OFFICE,

V Circle, Madras,

Chepâk, 6th October 1891.

From

Major D. McNeill Campbell R.E.

SUPERINTENDING ENGINEER, V CIRCLE,

To

THE Chief Engineer P.W.D. Dept
Thro' The Examiner
P.W. Accounts.

SIR,

3 & D

I have the honor to return the enclosures of your No. 3860 C dy 28th August 1891. and your Endorsement No. 4,104 C dated 15th September 1891. I have the honor to forward herewith Indent on the Director General of Stores in England for a set of Parsons detachable boring Tools 8 inches in diameter with 400' tubing -

Enclosures.
Office Copy & pl. sent to DG at annexpatterns on 17.10.91 with Cen. 10931

I have the honor to be
Sir
Your most Obedt Servt

D. Campbell
Major R.E.

Supt. Engr. V Circle.

From

THE SUPERINTENDING ENGINEER,

V CIRCLE,

To

THE Chief Engineer
P.W. Deptt.
thro. the Examiner of
P.W. Accts

Dated 6th
Recd } October 1891.

ENCLOSURES. 11

No. 450 S

Forwards an Indent on the Director General of Stores in England for a Set of Parsons detachable boring tools.

No. 2820 W dy 26th October 1891

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

2820/91

READ the following

Letter from the Exam. P.W. Accts. No. 6154 dy 9th Oct. 1891
Do — do — No. 211/6388/153 dy 20 Oct. 1891

Ordered that the indent for Parsons detachable boring tools be forwarded to the Home Govt. for Compliance.

2. A Sum of Rs 7,956 is allotted from the Provincial reserve with the Govt. to the P.W. Stores Dr. under Tools and Plant to meet the cost of the indent.

Rs 24,956

To The S.E. V circle
" Exam. P.W. Accts.
" L. & M. Deptt.

H.E. No. 2821 W dy 26 Oct. 1891.

To
The Director General of Stores,
India Office,
London.

Sir I am directed to forward for favor of very early compliance

Money Certificate of funds hereby called for

an indent for Parson's detachable boring tools required for experimental purposes in this Presidency.

I have &c

Recd 20 Dec 1871 from Govt of India in public dept

Hm 23/10
R 26/10

2820 71
92

1136 - 91
Govt of India
PUBLIC WORKS

26 Oct 91 2820/10
2821

Parsons debentable
= = =
Loaning Funds.
= =

Budget for - should be
be forwarded to the
Home Govt. -

Parsons debentable Loaning
= = = =
Funds.
=

Grant / indent
for —

30

3

30

22

30.11 3/26/10