

(1) Number of pages _____

(2) Date of repair _____

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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.

B.P. No.

726-727 (2)

Press

Mis.

Dated

21.3

18 76.

Not to be folded or roughly handled

Proceedings of the Madras Government Public Works Department
1876.

Read the following Papers.

N^o. From the District Engineer Gungahur dated 20 October 1878

"	"	Godavery	20
"	"	"	"
"	"	Krishna	23
"	"	"	"
"	"	"	8
"	"	Nallam	20
"	"	"	"
"	"	South Coast	23
"	"	"	"
"	"	Varangal	9 th Nov
"	"	"	"
"	"	Guinnelly	26 October
"	"	"	"
"	"	"	"

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant for the Quarter ended 30th September 1875.

Name of Work.	Amount of Estimate.	Current Year's Grant.	EXPENDITURE		Total Expenditure.	Succinct Account showing the state to which the works have been advanced up to date.
			During the Quarter.	During the current year.		
Godavery. Extension of irrigation from Eastern Delta.	RS. 14,00,200	RS. 1,71,000	RS. 50,812	RS. 1,17,107	RS. 7,23,696	1. Head Sluice.—Estimate Rupees 17,890 ... 0-19
		Deduct	...	110	102	2. Main Duct.—Estimate Rupees 28,060 .. 0-76 Revetments and steps are being placed on the right bank.
				1,16,997	7,23,594	3. Cocanada Canal.—Estimate Rupees 1,86,000— Earth work 0-90 Masonry 0-99 Coping to Madanad lock nearly completed; also all bridges at Chintapully. Distribution 0-68
						4. Mundapetta Canal.—Estimate Rupees 74,100— Earth work 1-0 Masonry 0-41 Thapasweram lock and weir finished. Distribution 0-35 Chadaveram sluice floor commenced, work stopped at present.
						5. Bank Canal.—Estimate Rupees 2,33,200— Earth work 0-62 From head to 9th mile completed, 10th mile not touched, 11th mile and portion of 12th mile incomplete, from 13th to 16th mile completed. Masonry 0-39 Lock at Choppellah completed, all but coping to walls and bridge, lock weirs about three-fourths completed. Lock at Dowlaisweram superstructure 3 feet being as an average. Materials are going down for Koolah lock. Distribution Postponed.
						6. Coringa Canal.—Estimate Rupees 74,300— Earth work 0-55 Completed between Alamoor and Vellah, nearly so between Vellah and Munjair.

Masonry 0-72 Alamur lock weir body wall 4½ feet high, and floor completed.	
Distribution 0-23 Vallah north side and south side channel sluices nearly finished.	
7. Injeram Canal.—Estimate Rupees 28,050— Earth work 0-30 Nearly completed. Masonry 0-65 In progress. Distribution 0-03 Materials under collection.	
8. Biccavole Drain.—Estimate Rupees 65,000— Earth work 0-67 Nothing done during month. Masonry 0-77	
9. Tooliabaga Drain.—Estimate Rupees 1,38,100— Earth work 0-68 Masonry 0-88	
10. Takee Main Drain.—Estimate Rupees 2,66,300— Earth work 0-29 Drain nearly completed according to reduced section from 9th to 16th mile. Masonry 0-89 Arches turned for Takee weir. Distribution 0-03 Kondoor drain about one-third done.	
11. Rest-houses.—Estimate Rs. 10,000 ... 0-97 Main building of Jeganadagerry rest-house completed, and out-houses in hand. Main building of Kotipilly rest-house completed.	
12. Compensation for lands.—Estimate Rupees 56,800 Rupees 847 spent up to August 1875.	
13. Samulcottah Canal.—Estimate Rupees 1,31,200— Earth work 0-97 Masonry 0-85 Distribution 0-06 Masonry sluices in progress.	
14. Demaveram Escape.—Estimate Rupees 4,200 0-93	
15. Tools and Plant.—Estimate Rupees 86,200	

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant for the Quarter, &c.—(Continued.)

Name of Work.	Amount of Estimate.	Current year's Grant.	EXPENDITURE		Total Expenditure.	Succinct Account showing the state to which the works have been advanced-up to date.
			During the Quarter.	During the current year.		
Godavery.—(Contd.) Extension of irrigation from Western Delta.	RS. 14,10,000	RS. 1,64,292	RS. 25,197	RS. 66,918	RS. 7,29,101	1. <i>Head Sluice, Main Canal</i> .—Estimate Rupees 19,500. Not commenced.
						2. <i>Main Canals</i> .—Estimate Rupees 49,000— Earth work ... 0.21 Between 2½th and 8th miles, all work finished off.
						3. <i>Kakrapurru Canal</i> .—Estimate Rupees 33,000— Earth work ... 0.41 From Gostanuddy head to head of Bank, Canal (a distance of 7½ miles) excavation of bed finished, and removal of banks nearly so. Masonry ... 0.00 Under tunnel in connection with Gostanuddy, head weir finished.
						4. <i>Nursapur Canal</i> .—Estimate Rupees 2,03,600. Earth work ... 1.41 Finished. Peravelly lock, Do. weir, Itempudy lock, Finished. Do. weir, Do. weir, Kavetuni lock, Mogultur lock, a little coping to be done. Do. weir, finished except parapets. 5 Irrigation sluices, 4 Dams, 1 Under tunnel, 6 Irrigation channels, Finished. Distribution ... 0.41 Compensation Rupees 1,176 spent.

5. *Bank Canal*.—Estimate Rupees 1,07,900—
Earth work ... 0.99 New head has been finished, and all works from head to Doddiputla (22 miles) completed. Tail-race to surplus weir 2nd mile completed.
Masonry ... 0.39. Surplus weir 2nd mile finished, Siddan-tum lock 11 feet 6 inches above floor. Koder lock finished, except coping.
Koder weir finished.
Masonries above drains. 0.44
Distribution ... 0.12 Two miles of Koder parallel channel finished.
6. *Ventia and Weyaru*.—Estimate Rupees 11,960—
Earth work ... 0.12 Yellurpad channel finished.
Masonry ... 0.28 Alteration of one escape and irrigation sluice finished.
7. *Undi Canal*.—Estimate Rupees 110,700—
Earth work ... 0.77 Finished, except tail races to weirs.
Masonry ... 0.25 Head lock finished, except trimming, slopes, &c.
Distribution ... 0.17 Three minor channels finished.
Compensation for land, Rupees 145 have been spent.
8. *Attili Canal*.—Estimate Rupees 86,000—
Earth work ... 0.72 All finished, except improvements to one bund.
Masonry ... 0.82 Gudicherla lock finished. Gunnum-pand weir finished.
Do. Do. lock finished, except some coping.
Surplus weir up to crown of arches.
Distribution ... 0.75 Three under tunnels, ten sluices, and four dams finished, some improvements to channels finished and some in hand, Ralingy channel improvements in hand.
Compensation for land.—Rupees 75 have been spent.
9. *Gostanuddy and Velpur*.—Estimate Rupees 1,41,060—
Earth work ... 0.61 Five miles of Gostanuddy earth work finished, and Velpur canal nearly so for 12 miles from head.
Masonry ... 0.35 Head lock and weir finished, except some coping weir across Gostanuddy up to springing of arches.

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant for the Quarter, &c.—(Continued.)

Name of Work.	Amount of Estimate.	Current Year's Grant.	EXPENDITURE		Total Expenditure.	Successor Account showing the state to which the works have been advanced up to date.
			During the Quarter.	During the current year.		
	RS.	RS.	RS.	RS.	RS.	
10. Nuchala Drain.—Estimate Rupees 13,200. Not commenced.						
11. Gostanuddy outfall and sluice.—Estimate Rupees 94,000— Earth work 0-14 159,466 Cubic yards of earth work done. Masonry Not commenced. Minor masonry Do.						
12. Yenamaduru Drain.—Estimate Rupees 28,800— Earth work 0-66 177,837 Cubic yards of earth work done; nearly all work provided for in estimate finished. 13. Other Drains.—Estimate Rupees 28,200— A.—Bundada and Rudroyacodu— Earth work 0-82 Improvements to Bundada drain finished. B.—Casa Drain— Earth work 0-6 48,476 Cubic yards of earth work done. C.—Buggesveram Drain— Earth work Finished. D.—Minor Drainages— Earth work 0-3 23,474 Cubic yards of earth work done.						
14. Drain West of Nursapur Canal.—Estimate Rupees 18,320— Earth work 0-93 Excavation finished, and one mile banking below Veerasaram road finished. Masonry Finished. Compensation for land.—Rupees 679 have been spent.						
15. Ellore Canal.—Estimate Rupees 2,43,700—						
15A. Main Canal.—Estimate Rupees 55,000— Earth work 0-34 From 15th to 20th mile and in 29th and 30th miles finished, all work is now done according to original sections. Masonry and earth work for distribution ... 0-87 13 Irrigation sluices finished. 3 Escapes do. Several Irrigation channels finished. Compensation for land.—Rupees 35 have been spent— 15-B. Mid Level Channel.—Estimate Rupees 64,180— Earth work Finished. Masonry 0-90 1 Head sluice built and pulled down. 6 Bridges. 6 Drops. 1 Under tunnel. Finished. 2 Regulating dams. 1 Escape. 7 Village sluices. Compensation for land.—Rupees 953 have been spent. 15-C. Low Level Channel.—Estimate Rupees 19,290. Earth work 0-85 Finished, and a distribution channel ordered to be charged to it finished. Masonry 0-93 Four drops, one escape, two bridges and four village sluices finished. Head sluice and bridge and drop at Muddapuram built and pulled down. 15-D. Pundicodu Drain.—Estimate Rupees 59,530— Earth work 0-97 431,353 Cubic yards earth work done. Masonry Finished. 15-E. Drain from 9½ miles.—Estimate Rupees 24,000— Earth work 0-66 165,460 Cubic yards of earth work done on drain from 9½ mile Mid Level channel. Masonry Finished. 15-F. Drainage Diversion.—Estimate Rupees 21,700— Earth work 0-78 212,787 Cubic yards of earth work done. Masonry 0-76 Finished, except Chinna Nundrakotu sluice.						

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant for the Quarter, &c.—(Continued.)

Name of Work.	Amount of Estimate.	Current year's Grant.	EXPENDITURE		Total Expenditure.	Success Account showing the state to which the works have been advanced up to date.
			During the Quarter.	During the current year.		
<i>Kistna.</i>	RS.	RS.	RS.	RS.	RS.	
Improving Masulipatam Section of the Kistna Delta.	1,87,990	15,600	3,007	4,091	1,76,027	16. <i>Rest-houses.</i>—Estimate Rupees 23,200. Six finished. 17. <i>Restoring Navigation with Weyairu.</i>—Estimate Rupees 72,500— Earth work Finished. Masonry Double lock finished, except about 30 feet coping, head sluices to mid and low-level channels finished. 18. <i>Additional Surplus Weir near the head of the Ellore Canal.</i>— Estimate Rupees 14,000. Masonry Finished. 19. <i>Tools and Plant.</i>—Estimate Rupees 1,05,360. <i>Widening Pulleru from Pamarru to Kowtarum Lock.</i>—Estimate Rupees 17,000. Earth work 100 <i>Widening Pulleru from Marriada to Pamarru.</i>—Estimate Rupees 31,250. Earth work 100 <i>Sloping the Banks of Masulipatam Canal from 1st to 4th mile.</i>— Estimate Rupees 10,100. Earth work 0.79 <i>Enlarging Masulipatam Canal from 4th to 12½ mile.</i>—Estimate Rupees 65,000. Earth work 0.99 <i>Enlarging Pulleru from Kankipad Lock to Marriada.</i>—Estimate Rupees 27,900. Earth work 0.99 <i>Constructing Regulating Sluice across Pulleru at Pamarru.</i>—Estimate Rupees 7,000. Masonry 100

						<i>Reconstructing a Bridge on Junction Canal near Pamarru.</i> —Estimate Rupees 1,350.
						Masonry 100
						<i>Constructing a Calingulak at Weyairu.</i> —Estimate Rupees 5,600.
						Masonry 0.98
						<i>Constructing Iron Punt.</i> —Estimate Rupees 6,820.
						Iron 100
						<i>Minor Branches and Sluices.</i> —Estimate Rupees 5,000.
						Masonry 0.01
						<i>Compensation.</i> —Estimate Rupees 5,000.
						(Earth work 100
						Masonry 0.54
						Revetment 0.30
						Roads 0.92
						Earth work 0.99
						(All masonry works completed long ago.
						<i>Head Sluice and Bridge.</i> —Estimate Rupees 19,260.
						Masonry 0.97
						<i>Excavating Canal.</i> —Estimate Rupees 2,79,880.
						Earth work 0.82
						<i>Enlarging and improving Ryves' Channel from the 2nd mile to Pulleru near Marriada.</i> —Estimate Rupees 58,180.
						Earth work 0.76
						<i>Enlarging and improving Gudivada Branch of Ryves' Channel.</i> — Estimate Rupees 26,800.
						Earth work 0.09 Cancelled
						<i>Constructing three accommodation Bridges on Ryves' Branch Channel.</i> — Estimate Rupees 3,780.
						Masonry 0.66

Widening the head of Masulipatam Canal.

Enlarging the South Main Canal from Seetanagram to Dugirala.

Enlargement and improvement of Ryves' canal and its branches.

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant for the Quarter, &c.—(Continued.)

Name of Work.	Amount of Estimate.	Current Year's Grant.	EXPENDITURE		Total Expenditure.	Succinct Account showing the state to which the works have been advanced up to date.
			During the Quarter.	During the current year.		
Extending Commamore Channel.	Rs. 1,95,770	...	Rs. ...	Rs. ...	Rs. 1,75,670	Constructing Iron Punt.—Estimate Rupees 7,840.
Constructing a bridge across Commamore Channel at Kolakalare.	8,030	...	...	...	1,700	Minor Branches and Sluices.—Estimate Rupees 5,000.
Excavating a channel along west side of Masulipatam Canal from Kankipaud to Ankamurru.	16,060	...	...	...	8,027	Masonry 0-75
	49,860	...	...	...	49,438	Constructing two accommodation Bridges on Ryves' Canal.—Estimate Rupees 5,600. Materials partly collected.
					17	Constructing an accommodation Bridge across Pulleru near Marri-vada.—Estimate Rupees 3,710. Materials partly collected.
					49,421	Constructing two Calingulaks and Bridges on Gudivada Branch of Ryves' Canal.—Estimate Rupees 2,960. Work stopped.
Constructing an under tunnel at Iyumpudy.	19,000	10,000	3,165	9,940	17,870	Work completed.
						Work completed, but accounts not yet closed.
						Masonry 0-80

Nellore.	4,20,000	18,500	3,243	5,325	4,05,568	Head sluice.—Estimate Rupees 18,000
Improvements to the Surva-pully channel.						Regulating sluice at the head of Jaffer Sahib's Channel.—Estimate Rupees 4,720. 1-09 Completed.
						Deepening the Survapully New Cut and improving old Ramareddy Channel.—Estimate Rupees 95,500.
						Earth work 1-01
						Masonry 0-94 Completed with the exception of
						Rubble pitching 0-70 one irrigation sluice.
						Gravel backings 0-80
						Miscellaneous 1-87
						Survapully Channel.—Estimate Rupees 1,26,500.
						Earth work 0-90
						Masonry 1-12
						Drainage 1-0
						Miscellaneous 2-48
						Main Reservoir.—Estimate Rupees 1,14,000.
						Earth work 1-03 Completed.
						Laterite revetment 0-86
						Gravel backings 0-81
						Masonry 1-15
						Miscellaneous 1-11
						Drainage Rupees 407 spent.
						Idagali Channel.—Estimate Rupees 33,440.
						Earth work 0-90 Nearly completed.
						Masonry 1-19 Completed.
						Miscellaneous 0-14
						Drainage Rupees 119 spent
						Vallur Branch.—Estimate Rupees 27,840.
						Earth work 1-19 Completed.
						Masonry 1-02
						Miscellaneous 0-28

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Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant for the Quarter, &c.—(Continued.)

Name of Work.	Amount of Estimate.	Current year's Grant.	EXPENDITURE		Total Expenditure.	Succinct Account showing the state to which the works have been advanced up to date.
			During the Quarter.	During the current year.		
South Arcot. Anicut across the Vellaur river at Palandorai.	Rs. 2,00,555	Rs. 20,000	Rs. 1,762	Rs. 8,251	Rs. 2,17,107	Anicut ... Completed. Head Sluice ... Do. but shutters and part of rough stone apron collecting materials for putting apron. Flood bank ... Completed. Main Channel ... 0-96 Branch Channels A, B, C, D, F, G, H, L, M and N ... Completed. Improvements to Polimcottah tank ... Do. Two culverts of two arches of twelve feet span each on 9th and 10th miles at stations 74 and 93 ... Do. Two tunnels on Main Channel at stations 76 and 97, and three on Branch Channels D, G, and L ... Do. Three supply sluices on Main Channel at stations 80, 111 A and 115 A, and five at the heads of Branch Channels A, B, F, G and L ... Do. Three minor distribution sluices on Main Channel at stations 91, 95 and 102, and twenty-one on Branch Channels B, F, G, H and L ... Do. One masonry fall on Main Channel at station 89 ... Do. One division sluice on Branch Channel F ... Do. One calingulah on Branch Channel G ... Do. One culvert on Main Channel at station 47 ... Do. One masonry fall on Main Channel at station 54 A ... Do. One supply sluice on Main Channel at station 69 ... Do. One culvert on do. do. 29. ... Do. One division sluice do. do. 122. ... Do. One calingulah do. do. 69 ... Do. Three minor distribution sluices on Branch Channel A ... Do. One calingulah on Branch Channel C ... Do. One minor distribution sluice on Main Channel at station 61 ... Do. One culvert of two arches of 12 feet span each on Main Channel at station 59 ... Do.

Tanjore.
Regulators for the principal branches of the Vennaur rivers.
Amount debitable to Local Funds.
Pandavayaur bridge Rs. 7,950
Vellayaur bridge „ 6,005

	2,05,106	2,028	...	...	2,03,079	Dam across the Vennaur at the Vettair Head.—Estimate Rupees 95676.
	13,955	...	...	...	18,010	Vennaur Sluices. Brick in chunam ... 1-00 Stone in do. ... 1-00 Shutters ... 1-00 Earth work ... 1-00 Miscellaneous... 1-00 Work completed.
						Vettair Sluices. Brick in chunam ... 1-00 Stone in do. ... 1-00 Shutters ... 1-00 Earth work ... 1-00 Miscellaneous ... 1-00 Work completed, but accounts of the fixing of palings not settled.
						Dam across the Pandamyaaur and Corayaur Heads.—Estimate Rupees 65,775. Brick in chunam ... 0-96 Stone in do. ... 1-00 Shutters ... 0-66 Earth work ... 0-90 Miscellaneous ... 0-75 Work completed.
						Dam across the Pandavayaur and Vellayaur.—Estimate Rupees 57,610— Pandavayaur Dam. Brick in chunam ... 1-00 Cut stone in do. ... 1-00 Shutters ... 1-00 Earth work ... 1-00 Miscellaneous ... 1-00 Work completed.
						Vellayaur Dam. Brick in chunam ... 1-00 Cut stone in do. ... 1-00 Shutters ... 0-95 Earth work ... 1-00 Miscellaneous ... 0-97 Work completed.

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant for the Quarter, &c.—(Concluded.)

Name of Work.	Amount of Estimate.	Current Year's Grant.	EXPENDITURE		Total Expenditure.	Succinct Account showing the state to which the works have been advanced up to date.
			During the Quarter.	During the current year.		
Tanjore.—(Concluded.) Fixing bench mark stones along both banks of Coleroon, and incidental expenses connected with the Augunda — Cauvery, and Coleroon Survey.	RS. 1,205	RS. 40,000	RS. 19,071	RS. 29,375	RS. 1,106	Expenditure 0-92
Tinnevely. Streets and Anicut ...	10,00,000				9,16,641	Anicut and Head Works.—Estimate Rupees 2,07,506. Earth work Completed. Masonry 0-99 Miscellaneous 0-99
						Channels and Works, South side of River.—Estimate Rupees 1,97,679. Earthwork Completed Masonry 0-99 Miscellaneous 0-98
						Channels and Works, North side of River.—Estimate Rupees 3,73,021. Earth work Completed Masonry 0-97 Miscellaneous 0-52 Small channels, estimate Rupees 29,000 Do. sluices, do. 18,600 General sundries, do. 3,977 Compensation, do. 40,000

Abstract of the total Grants and Expenditure for the works in each district.

Districts.	Amount of Grants for the year.	Expenditure to 30th September 1875.
Godavery	RS. 3,35,292	RS. 1,83,915
Kistna	81,872	50,402
Nellore	18,500	5,325
Tanjore	2,028	...
Do. under Local Funds	...	...
South Arcot	20,000	8,251
Tinnevely	40,000	29,375
Total	4,97,692	2,77,268

Statement showing the Nature and Progress of all Preliminary Surveys and Inquiries under prosecution in connection with new Irrigation Projects intended to be carried out from Loan Funds for Quarter ended 30th September 1875.

Districts.	Name of Project.	Particulars of Progress of Investigation.
Ganjam	Rooskoolia Project Vamasadara River or Chicacole Project.	Papers with Chief Engineer for Irrigation.
Godavery	Central Delta Project Unnamalunka do.	
Kistna	Surveying and levelling operations of the Eastern Delta Project.	Plans and estimates of irrigation and drainage of Kykalur section, 5th section of the Eastern Delta, and improvements of Masulipatam Canal are with Chief Engineer for Irrigation.
Do.	Western Delta Project	The out-door work for other division of Eastern Delta Project is nearly done; plans and estimates, &c., are under preparation. The estimate for Inampoodu under tunnel was sanctioned in G.O., No. 1,496, dated 31st May 1875.
Madura	Perryaur Project	The plans and estimates of Western Bank Channel, Nizampatam Canal, and Rapully and Buttepole drainage works, and revised plans and estimates of Toongabudra drainage are with the Chief Engineer for Irrigation. The other sections are under revision.
		With Government.

Let it pay 2
17th March 1876

Major P.C.
Chief Engineer for Irrigation
for Chief Engineer for Irrigation

FORMER CASES.

Current No.

of 187

" "

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M. WORKS FORM No. 3.

Current No.

2012

From

The Chief Engr for
Irrigation

No.

137

Dated

17 March 1876

Recd.

18

Subject:-

State showing
progress of Agricultural
Works for Quarter ending
30th Sept 1875.

LATER CASES.

Current No.

of 187

" "

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ENCLOSURES.

From

to

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Orders and Proceedings in file.

Depart- ment.	No.	Date.	ENDORSEMENTS.		
			Depart- ment.	No.	Dated.

19

No. 728
Pro: of the Madras Government.

Under date the 21st March 1876.

Read the following:-

From

The Chief Engineer
for Irrigation

(H.C. No. 13 to 17th March 1876)

Order thereon

Injection No.
Account.

Ordered that the
foregoing Statement be
forwarded to the Govt.
of India.

and

(H.C. No. 727 of 21/3/76. 11/11)

No. 727
Copy of the above for-

warded to the Govt of India.

10 sc Draft. 7-4-76

To the District Engineer concerned.

Chief Engineer for Irrigation.

" " Exam^r of Mr. Accounts

Draft. 7-4-76

20-12-22

20/12 2246
Govt. of 1876: Madras.

PUBLIC WORKS.

To

The Resident Engineer

Dated,

Issued

Recd.

Encl.

G. O. 21st March 1876, No.

726
727

Nos. 331 @ 333

46
17
83
Forwarding statement showing
progress of Agricultural
Works under execution
from the Extraordinary fund
for the quarter ended
30th Sept 75.

Statement showing the
progress of Agricultural Works
under execution from the Extraordinary
fund for quarter
ended 30th Sept 75 -
Ordered to be forwarded
for Govt of India -

91
Sent to Mr. J. E. S. 18.11.76