

APPENDIX B.

(Referred to in paragraph 2-7.)

Division, _____ Canal. _____ 19 _____ 19

STATEMENT SHOWING THE MEASUREMENTS CHECKED BY CANAL OFFICERS DURING FASL

| CHARGES. | Name of officer. | Number of villages checked. | NUMBER OF FIELDS CHECKED. | | | AREA CHECKED IN ACRES. | | | Area as measured by Patwari. | DIFFERENCE. | | | | Area checked in each charge. | Number of khasras checked. | REMARKS. |
|--|------------------|-----------------------------|---------------------------|-----------|--------|------------------------|-----------|--------|------------------------------|-------------|-------|--------|-------------|------------------------------|----------------------------|----------|
| | | | By settlement record. | By chain. | Total. | By settlement record. | By chain. | Total. | | More. | Less. | Total. | Percentage. | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| Total | | | | | | | | | | | | | | | | |
| Deduct— Number of villages checked by more than one officer | | | | | | | | | | | | | | | | |
| Total number of villages and area checked actually | | | | | | | | | | | | | | | | |
| Total number of villages and area checked | | | | | | | | | | | | | | | | |
| Percentage checked in acres | | | | | | | | | | | | | | | | |

ii

APPENDIX C.

iii

(Referred to in paragraphs 2-20 and 2-21.)

Extract from a note, dated 19th September 1897, by J. S. BARBER, Esq., M.E., M.I.C.E., Chief Engineer, Irrigation Works, Punjab, on Operation of Discharges of Distributaries.

* * * * *

6. From the beginning of the *rabī* season of 1897-98 Zilladars should be furnished by Sub-Divisional Officers with the head discharge tables of the *rajbahs* in their respective sections, and should be directed to enter daily in their gauge books the discharges as well as the daily gauges now entered; to total these daily discharges monthly, and reduce the total to *foot-acres* of water by simply multiplying the total by 2; and also to work out the value of Δ (*Delta*), or the depth of water consumed over the area irrigated to date, by dividing the *foot-acres* obtained as above by the area irrigated to date in acres. (In the *rabī* season old sugarcane should be included in the area irrigated to date.) When two Zilladars happen to have sections on the same *rajbaha*, gauges and discharge tables for the junction of the sections should be maintained by both, the Zilladar of the first section being credited with the volume passed on. Necessary deductions should be made at the end of the month for the water legitimately run off through recognized escapes, the volume of water escapes being reduced to *foot-acres*. In this way, each Zilladar's section will, as it were, be debited with the number of *foot-acres* of water consumed during the *kharif* and *rabī* season of each year.

7. Sub-Divisional Officers should in a similar manner keep up in their gauge books a running account of the *foot-acres* consumed in each *rajbaha* system month by month, and work out the value of Δ from the beginning of the season to the end of the month. In calculating Δ , forms I, II and III appended to this note show how the register of daily discharges, volume of water used, etc., month by month is to be maintained by Zilladars and Sub-Divisional Officers.

8. It will be the duty of Superintending Engineers to see that the instructions now issued with this note are acted on, and that measures are taken for the personal instruction of members of the Superior Revenue Establishment, who should in turn see personally that Patwaris are taught in accordance with the instructions. All Sub-Overseers should be specially taught by Sub-Divisional Officers to take discharges of *rajbahs* and outlets, and these men will then be in a position to teach others. Sub-Overseers from their general training should, after proper instruction by Sub-Divisional Officers, be capable of taking *rajbaha* head discharges in the orthodox method followed by the Engineer Officers.

3. Regarding the correction of Rajbaha head discharge tables from month to month, as may be necessary owing to changes in the channel due to growth of weeds, deposit of silt or other causes, the simplest plan is to have what may be called a *normal* discharge table for each Rajbaha head based on the discharge taken when the channel is in fair average condition. The charges corresponding to the daily recorded gauges should be invariably entered according to the normal discharge table, and these daily discharges totalled at the end of each month, the necessary corrections being made in the form of a *plus* or *minus* percentage as follows:—

Say the discharge taken on the 10th or 20th of the month is found to be 5 or 10 per cent. *more* or *less* than given in the normal table, then the total of the daily discharges of the month should be increased or reduced in the same proportion before working out the *foot-acres* of water consumed. The Sub-Divisional Officers should be held responsible for determining by actual monthly discharges, taken either by themselves or by trained subordinates, the corrections (if any) to be applied to the normal table every month, and to inform the Zilladars concerned at the end of the month, so that these officials may know the correction to apply. Discrepancies under 5 per cent. may be neglected. The normal table of a Rajbaha may require revision occasionally.

A Sub-Divisional Officer should observe personally the head discharge of every distributary in his sub-division at least once every second calendar month.

V

FORM I.
FOR ZILLADARS.
GAUGES AND DISCHARGES OF RAJBHAHES OF _____ DIVISION,
_____ CANAL. For month of _____ 19__

| Name of Rajbaha or Minor. | (1) | | (2) | | (3) | | (4) | |
|--|--------|------------|--------|------------|--------|------------|--------|------------|
| | Gauge. | Discharge. | Gauge. | Discharge. | Gauge. | Discharge. | Gauge. | Discharge. |
| REMARKS. | | | | | | | | |
| Corrected Total of Daily Discharges col. 2 + col. 4. | | | | | | | | |
| AMOUNT OF CORRECTION. | | | | | | | | |
| + | | | | | | | | |
| - | | | | | | | | |
| Total of Daily Discharges during month by Table. | | | | | | | | |
| + | | | | | | | | |
| - | | | | | | | | |
| Name of Rajbaha. | | | | | | | | |
| (1) | | | | | | | | |
| (2) | | | | | | | | |
| (3) | | | | | | | | |
| (4) | | | | | | | | |
| Date. | | | | | | | | |
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | | | | | | | | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |
| 25 | | | | | | | | |
| 26 | | | | | | | | |
| 27 | | | | | | | | |
| 28 | | | | | | | | |
| 29 | | | | | | | | |
| 30 | | | | | | | | |
| 31 | | | | | | | | |

- (A) Total of Daily Discharges during month by table ...
- (B) Corrected Total Daily Discharges—see margin, column 5 ...
- (C) Deduct Total Daily Discharges escaped during month ...
- (D) Balance used in month ...
- (E) Foot-acres used in month = (D) x 2 ...
- (F) Total Foot-acres used to end of previous month ...
- (G) Grand Total Foot-acres used to end of month ...

FORM II.

FOR SUB-DIVISIONAL OFFICERS.

REGISTER SHOWING AREAS IRRIGATED, VOLUME OF WATER USED IN FOOT-ACRES, AND DEPTH OF WATER USED ON THE RAJBABAS, CANAL. FASL RABI 19—19

| Month. | (1) — Rajbaha. | | | (2) — Rajbaha. | | | (3) — Rajbaha. | | | (4) — Rajbaha. | | |
|------------------------|----------------|-----------------|-----------|----------------|-----------------|-----------|----------------|-----------------|-----------|----------------|-----------------|-----------|
| | (a) Acres. | (b) Foot-acres. | (c) Feet. | (a) Acres. | (b) Foot-acres. | (c) Feet. | (a) Acres. | (b) Foot-acres. | (c) Feet. | (a) Acres. | (b) Foot-acres. | (c) Feet. |
| | | | | | | | | | | | | |
| October .. | | | | | | | | | | | | |
| November .. | | | | | | | | | | | | |
| December .. | | | | | | | | | | | | |
| January .. | | | | | | | | | | | | |
| February .. | | | | | | | | | | | | |
| March .. | | | | | | | | | | | | |
| Total for Fasl Rabi .. | | | | | | | | | | | | |

Form III for Kharif will be the same, except that the names of months will be altered and the words within brackets in column (a) omitted.

APPENDIX D.

(Referred to in paragraph 3-12.)

STATEMENT OF CASES TRIED BY ————— DEPUTY COLLECTOR OF THE ————— DIVISION, ————— CANAL, DURING THE MONTH OF ————— 19 ————

| Serial No. of case. | Name of district. | NAME OF PARTIES IN THE CASE. | | Date of institution of case. | Nature of offence. | By whom the case was initiated. | Date of passing orders on the case. | Nature of orders passed, quoting section of Canal Act under which sentence was passed and nature and amount of punishment, if any, awarded. | REMARKS. |
|---------------------|-------------------|------------------------------|-------------|------------------------------|--------------------|---------------------------------|-------------------------------------|---|----------|
| | | Plaintiffs. | Defendants. | | | | | | |
| | | | | | | | | | |

- NOTE.—(1) Cases should be brought forward each month until disposed of.
 (2) If any case has been pending over one month, the cause of delay should be explained in the column of remarks.
 (3) If during any month any case of the month or any previous month has been disposed of on appeal, it should be entered in this statement, and a copy of the order of the appellant officer given in the column of remarks.

