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# SUGAR COST ACCOUNTS

A description of the system adopted by the  
Ste. Madeleine Sugar Company, Limited

BY

G. C. SKINNER,  
*General Manager*

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(Supplement to "*Tropical Agriculture*."—October, 1928)

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A Description

Sugar Co., Ltd.

IN order to enable the more fully the method the Ste. Madeleine Sugar Co., of the properties and organ a preliminary to the descripti system.

The land owned by the Com roughly some 24,000 acres, of which 11,500 acres are under estate cultivation, 6,000 acres are rented to cane farmers, 5,700 acres are uncultivated, and 1,300 acres are pastures and traces. This area is made up of several adjacent estates which are grouped into four large sections. These estates are well served with a network of private railways, totalling about 80 miles of standard gauge and 10 of 3 feet gauge, and the Trinidad Government Railway crosses from east to west and on the eastern side of the estate from north to south.

The factory is practically in the centre of the properties, and is capable of dealing with around 3,000 tons of cane daily; between 25,000 and 30,000 tons of sugar are made yearly.

Approximately two-thirds of the cane is estate grown and one-third is grown by cane farmers, of this latter a considerable portion is grown on lands which do not belong to the Company.

The employees of the Company (including peasant cane-farmers, many of whom divide their time between their own cultivation and the estate) number between 10,000 and 11,000.

It will be readily understood that on such a place, and in the tropics, sugar estate accounting must take a very different shape from farm accounts at home and in other temperate climates. On farms at home there are usually many crops to contend with. Here, there is just the one—Sugar.

The large number of labourers employed, and the variety of work undertaken, necessitates the employment of a considerable staff of supervisors and experts, such as agriculturists, chemists, and mechanical, electrical, locomotive, and agricultural engineers, veterinary surgeons, doctors, accountants, &c.

workers are connected could be made to the Appendix 1A\*) which shows from the labourer in the Chairman of the Board

After this general description of the organisation of the estate, we can now deal with expenditure, and the method by which it is analysed and recorded. Appendix 2 shows how the expenditure is dealt with from the Line List to the final local accounts as forwarded to London Office.

It will be observed that there are two main sections, i.e.: "Factory and General" and "Estate." The former is sub-divided into the Factory, Transport, General and Medical Sections; the latter is divided into the Estate and Farmers Sections.

A representative division of expenditure is shown in Appendix 3, which gives in diagrammatic form the percentage distribution amongst sub-sections of the sectional expenditure.

We will take the estate expenditure first, and working from bottom up we start with the Line List: This is a plain ruled pocket book which is kept by the Overseer and is used by him for taking a list of and pricing the labourers daily. When visiting the fields in the morning he takes down the names of all those at work, keeping the different gangs separate.

Above the list of names for each gang he records the number of the field in which the work is being done, the class of work, and the rate being paid. In the afternoon, after the work has been measured up and priced, he places the amount earned by each against the name. From the Line List the Pay Roll is written up, and the Overseer compiles his Daily Abstract. This form (Appendix 4) is the key to the accounting system.

\* All documents referred to will be found in the Appendix.

On referring to the Daily Abstract it will be seen that the following information is made readily available:—

No. of Field in which work was done ;  
 Do. Labourers employed in each operation ;  
 Do. Animals do. do.  
 Size and Rate of Task ;  
 No. of Tasks worked ;  
 Description of Work ;  
 Daily earnings for each unit of labour ;  
 Section to which it is to be charged ;  
 Total amount, and  
 Where chargeable in the Ledger.

It is only necessary to make one or two explanations in regard to this form. In the 4th and 5th columns "D.W." means Day Workers, the others being on piece or task work. In the "description of work column" the figures 1/70, 1/55, 44/25, mean:

One Man (The Driver) at 70 cents.  
 One Man (Asst. Driver) at 55 cents.  
 44 Units at 25 cents.

"Section" refers to the age of the canes worked:  
 A—represents cane left over from the previous year called Standovers ;  
 B—Plant cane to reap for current year ;  
 C—1st Ratoons ;  
 D—2nd Ratoons, &c., until  
 M—Young plants for following year.

It is necessary to indicate this, as there are sometimes two or more sections in the same field.

These Abstracts are sent in to the Central Office and the information is posted daily to the Ledgers—separate Ledgers being kept for each Estate.

The Field expenditure, as will be seen from Appendix 2, is entered in detail in the Field Ledger, the totals of which are posted to the Expenditure Ledger. Other work such as that in connection with stock is posted direct to the latter.

In the *Field Ledger* separate accounts are kept for each field. The main heads of expenditure are:—

Digging Para grass.  
 Preparing Land.  
 Tractor Ploughing.  
 Drilling.  
 Round Ridging.  
 Sub-soiling.  
 Planting.  
 Pen Manuring.  
 Green Dressing.  
 Draining.  
 Weeding.  
 Forking.  
 Applying Artificial Manure.  
 Reaping, &c.

These headings are further sub-divided. Appendices 5A, 5B, 6, 7A and 7B, are the three forms used in the Field Ledger.

Appendix 5A is the Detail Sheet, one of which is used for each sub-head, and is printed on white paper.

Appendix 6 is the "Total" page for each sub-head, and is printed on blue paper.

Appendix 7A is the Control Sheet which gives the analysis of all expenditure on the particular field for the year, and is printed on pink paper.

We will take as an example "Cutting Plants." The expenditure will be posted daily from the abstract to Appendix 5A (white sheet). This sub-section is one of several (such as "Carting plants"; "Heading plants," &c.) forming the main section "Planting." The totals of these white sheets are posted fortnightly to the Blue Sheet (Appendix 6) and from there to the "Planting" column of the Control Sheet Appendix 7A (pink). It will be noticed that in the sub-head Detail Sheet (5A and 5B) not only is the expenditure recorded, but also the number of workers, their rates of pay and daily earnings (Appendix 5B). This information is frequently most useful. On the reverse side of the Control Sheet (Appendix 7B) full particulars of the field statistics relating to yield and costs and detailed cost per acre are given so that the sheet gives the full history of a particular field for a year.

The totals of this ledger are posted *via* a Summary Statement to the *Expenditure Ledger*, Wages column. As will be seen from Appendices 8 and 9 this ledger is also made up of Detailed and Control Sheets. The first being printed on white paper and the latter on pink. These forms are self-explanatory.

The foregoing disposes of the wages section of the Estate Ledger. There is, of course, cash expenditure other than wages. Such expenditure is analysed fortnightly, and posted to a Detail Sheet (Appendix 10) and from there to Cash Expenditure Column of the Control Sheet (Appendix 11) which will be observed is the same as Appendix 9.

*London Debit Notes* are dealt with in a similar manner, the remaining column, *Inter-Estate Accounts*, represents charges for work done by one Estate for another. This information is posted to the Expenditure Ledger from a fortnightly analysis of the Debit Notes or *via* the Field Ledger as the case may be.

The list in Appendix 12 gives the headings of the "Control Sheets" generally used, but these may be increased or altered at will. Those marked with an asterisk also appear in the Field Ledger.

This completes the description of the manner of charging all Estates expenditure, but before going on to the Factory side one or two observations should be made on the benefits that are derived from a system which seems to be rather laborious but is in practice very simple.

Prior to putting in this system, huge unwieldy Analysis Sheets were forwarded fortnightly to the Central Office. These gave such information as the amount spent on "Forking"; "Weeding"; "Stock Food"; &c., but the Central Office had no means of tracing how these amounts were made up, or which fields were worked. To everybody's knowledge a great deal of "cooking" took

place, and in addition the information was received at Headquarters more than a fortnight after the work had been done, whereas now it comes in the day after.

To-day there are several means of checking the information supplied. When riding round the estate one can make a note of the work being done in a particular field and number of people employed, and on the following day one can see whether it has been properly recorded in the Abstract. Formerly there was great difficulty in the Manager of one estate finding out what his neighbour was paying for any particular work. To-day every Manager or Overseer has the right to go over any estate's ledger where full information on every point will be found.

The Office staff now check up regularly the expenditure under each heading for every field, and if cost per acre does not tally with rate paid the Overseer is called upon to explain.

Recently two members of the Agronomist's staff were appointed Field Auditors. At any time they can call on an Overseer to go over the work in any field and check up and compare results with the Ledger. They afterwards submit a report to the General Manager as to the correctness of the measurements, price paid and comparison of rate for similar work on other estates. The advantages of such an independent audit are obvious.

Field Ledgers in pocket book size are copied from the Office Ledger, so that field expenditure can be conveniently discussed on the spot. This is a loose-leaf pocket book, and is written up fortnightly.

Another pocket book which is of great assistance when riding round the estate is one which has a double page for each field. On one page is given the following information:

Area ;  
 Class of Soil ;  
 Undulating or Flat ;  
 How Planted ;  
 Variety ;  
 Date Planted ;  
 Artificial Manure per Acre ;  
 Date applied ;  
 Pen Manure per acre ;  
 Pen Manure how applied ;  
 Burnt Lime per acre ;  
 Date applied ;  
 Ground Limestone per acre ;  
 Date applied ;  
 Tons Estimated for 192    Crop per acre ;  
   Do.           do.   192   Crop per field ;  
   Do. Reaped for 192   Crop per acre ;  
   Do.           do.   192   Crop per field ;  
 Date Reaped.

The blank page is used for making notes of observations from time to time.

We now come to the Factory and General Expenditure side.

As will be seen from Appendix 2, this is divided into 4 sections—Factory, Transport, General, and Medical. These accounts are all kept in

one Expenditure Ledger and the method used is the same in each case. We will start off, as in the case of the Field side, with the labourers. These are divided into two main classes—skilled and unskilled. With the unskilled the time is taken in the same way as in the field, *viz.*; by the Overseer, who analyses same in his Daily Abstract (Appendix 13) which is posted up in the Ledger in the Central Office daily.

The skilled men, such as Fitters, Turners, Carpenters, Masons, &c., write up a time sheet (Appendix 14) daily stating the number of hours spent on each job. From these time sheets the timekeeper makes up a weekly time sheet (Appendix 15) and a daily abstract (Appendix 13) which is posted in the same way to the Detail Sheets of the Factory Ledger.

*Factory Ledger (Appendices 16-20).* This, of necessity, has to be divided differently from the Field Ledger. The costs are divided into "Running" and "Maintenance." The Detail Sheets, as in the case with the Field Ledger, are printed on white forms. The total "Running" forms are pink, the "Maintenance" blue, and we also have Control Sheets which amalgamate the Running and Maintenance and these are on yellow paper. The method of posting from one to the other is really the same as with the Field Ledger and it is therefore not necessary to go into this in greater detail.

Another difference between the Factory and Estate accounting is the manner of handling of stores. On the Estates, the stores are charged up in bulk either from the merchants' invoices or from the Factory Debit Notes, but with the factory, all stores purchased go into stock and are charged out as consumed, however small the amount. A requisition is made to the Store on a *Stores Order Form* (Appendix 21) signed by one of the Engineering Staff containing a note of what is required, and where the amount is to be charged.

These order forms are filed in their proper place until the end of the day when they are entered up in the *Stores Charge Book* (Appendix 22). In this book it will be noticed that the stores are detailed and a price placed against each item. The total of each heading is posted to the material column in the Factory Ledger—Detail Sheet—daily, and, as in the case of Wages, totals are posted to Control Sheets fortnightly.

*Cash Expenditure, Inter-Estates Accounts and London Accounts* are treated in exactly the same manner as previously described. Appendix 23 gives a list of Main Headings of Expenditure for Factory, Transport, General and Medical.

There are, of course, a very large number of sub-heads, as every piece of machinery in the factory, every loco., &c. has its own account. It might be mentioned that replacements and new machinery go through the "Maintenance" section but under separate sub-heads.

The previous account about covers the methods adopted as regards costing. There are, of course, various accounts such as Cash Accounts, Personal Ledger, &c., but these are all kept in a similar manner to those of most firms.

There remains the question of accounting for the produce and the method of keeping track of the cane may be worth mentioning.

*Estate Cane.*—The cane when cut is either carted or headed to railway waggons. The carted cane is usually weighed on the cart and the carterman is paid by the ton, but headed cane cannot be weighed until it arrives at the factory, and headers are therefore paid by the truck.

Immediately a truck is loaded the Overseer in charge of this work makes out a truck ticket (Appendix 24) stating the name of the Estate, the truck number and date of loading.

This ticket is placed in a pocket provided on the truck. On reaching the factory scale the weight of the truck is punched on the ticket. It is then placed in a pigeon hole with other tickets from the same Estate and at the close of the day these are all sent up to the Central Office with a list of trucks and weights for the day (Appendix Fig 25.)

The Field Overseer, at the close of his day's work, makes up a statement (Appendix 26) showing all trucks loaded for the day—giving truck and ticket numbers, also the field from

which the cane was reaped and the name of the loading station. On arrival at the Central Office these forms are checked up with truck tickets received through the factory cane weigher. The tickets are then returned to the Estate together with a certificate (Appendix 27) of the weight of cane received for the day. Each week the estate sends in a form (Appendix 28) giving information as to the tonnage and date of reaping of each completed field.

Before being entered on the Control Sheet of the Ledger this information is checked at the Central Office from information obtained from the truck tickets.

*Farmers' Cane* is almost invariably brought to the loading place by carts, but occasionally Farmers, through whose land a railway runs, are allowed to load direct into trucks.

On arrival at a scale the carts are weighed and a receipt (Appendix 29) given for each load. The Farmers' Ledger is posted from the duplicate of this receipt.

The Cane Weigher sends in a detailed list of all loads bought during the day showing the total weight loaded into each truck (Appendix 30). As these trucks are re-weighed at the factory yard there is ample check on the weights.

*Chemist's Report.*—The method of accounting for the cane after it arrives at the factory yard is covered by the Chemist's Report, and a copy of this (Appendix 31) is given for reference.

## APPENDIX.

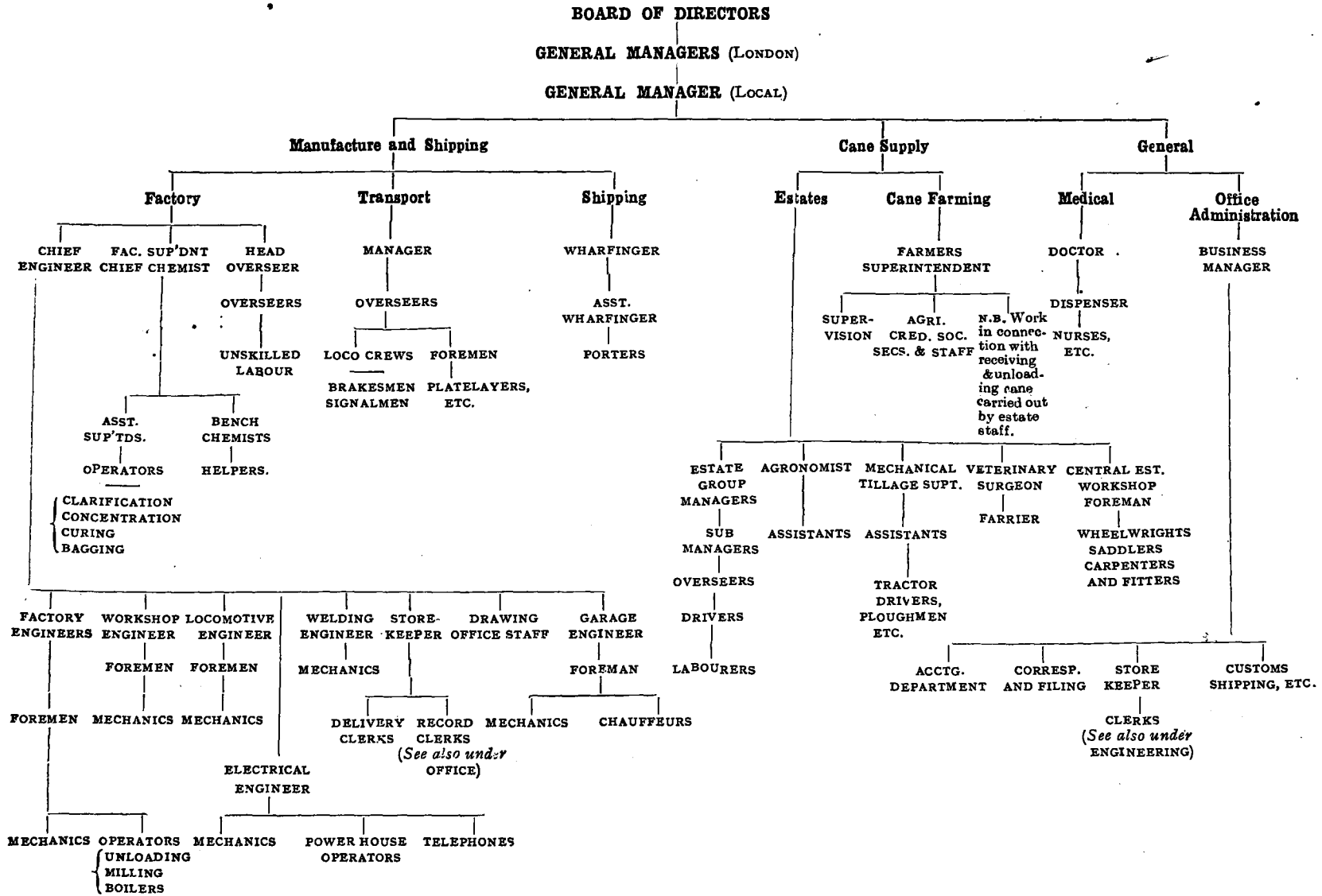
## LIST OF CONTENTS.

(The Colour and Size of the various sheets are noted.)

No.	Description.	Colour.	Size.
1	Organisation Chart .. .. .	—	—
2	Diagrammatic analysis of the method of recording expenditure .. .. .	—	—
3	Percentage distribution of sectional expenditure on sub-sections .. .. .	White	Edexco Paper No. 162.
4	Daily Abstract * .. .. .	Pink	14 inches by 13 inches.
5A	Front of Sub-head Detail Sheet .. .. .	White	11 inches by 9 inches.
5B	Back of Sub-head Detail Sheet .. .. .	do.	do. do.
6	Sub-head Total Sheet .. .. .	Blue	do. do.
7A	Front of Field Expenditure Control Sheet .. .. .	Pink	See Note.
7B	Back of Field Expenditure Control Sheet .. .. .	do.	do. do.
(The actual form used by the Company is a double sheet each side 11 inches x 9 inches, the recto of the first sheet is arranged as fig. 7B, the verso of the first sheet and the recto of the second are arranged as fig. 7A, and the verso of the second sheet is ruled so that the costs per acre of each operation involved in the cultivation of the particular field can be noted.)			
8A	Front of Sub-head Detail Sheet in Expenditure Ledger .. .. .	White	11 inches by 9 inches.
8B	Back of Sub-head Detail Sheet in Expenditure Ledger .. .. .	White	11 inches by 9 inches.
9	Control Sheet in Expenditure Ledger .. .. .	Pink	do. do.
10	Detail Sheet for Cash Expenditure other than wages .. .. .	White	do. do.
11	This is intended to be the same Sheet as No. 9, only that the details of No. 10 are posted to the CASH COLUMN (Local Accounts Column) .. .. .	Pink	do. do.
12	List of Control Headings in Expenditure Ledger .. .. .	—	—
13	Factory Wages Daily Abstract .. .. .	Russet	14½ inches by 11 inches.
14	Factory Workman's Time Sheet .. .. .	White	7 inches by 6 inches.
15	Factory Weekly Time Sheet .. .. .	White	11½ inches by 8½ inches.
16	Sub-head Total Sheet for factory running costs .. .. .	Pink	11 inches by 9 inches.
17	Sub-head Detail Sheet for factory running expenses .. .. .	White	do. do.
18	Sub-head Total Sheet for factory maintenance expenses .. .. .	Blue	do. do.
19	Sub-head Detail Sheet for factory maintenance expenses (Same as No. 17) .. .. .	White	do. do.
20	Factory Operation Control Sheet .. .. .	Yellow	do. do.
21	Stores Order Form .. .. .	(Any colour optional)	5 inches by 4 inches.
22	Sheet from Stores Charge Book .. .. .	White	12¾ inches by 9¼ inches.
23	Main headings of factory, transport, general and medical expenditure .. .. .	—	—
24	Truck Tickets: Estate .. .. .	White	6 inches by 1½ inches.
	Farmers .. .. .	Carmine	do. do.
25	Daily truck and weight list .. .. .	White	13 inches by 8½ inches.
26	Daily return of trucks loaded .. .. .	Golden Red	13½ inches by 9½ inches.
27	Cane tonnage advice note .. .. .	White	8 inches by 4 inches.
28	Estate reaping report .. .. .	Blue	10½ inches by 8 inches.
29	Receipt for farmers' cane .. .. .	White	14½ inches by 4½ inches. (ctg. 4 tickets).
30	Cane Weighers Daily Summary of weight of cane loaded .. .. .	White	13 inches by 7½ inches.
31	Chemist's report (3 sheets) .. .. .	White	8½ inches by 13 inches.

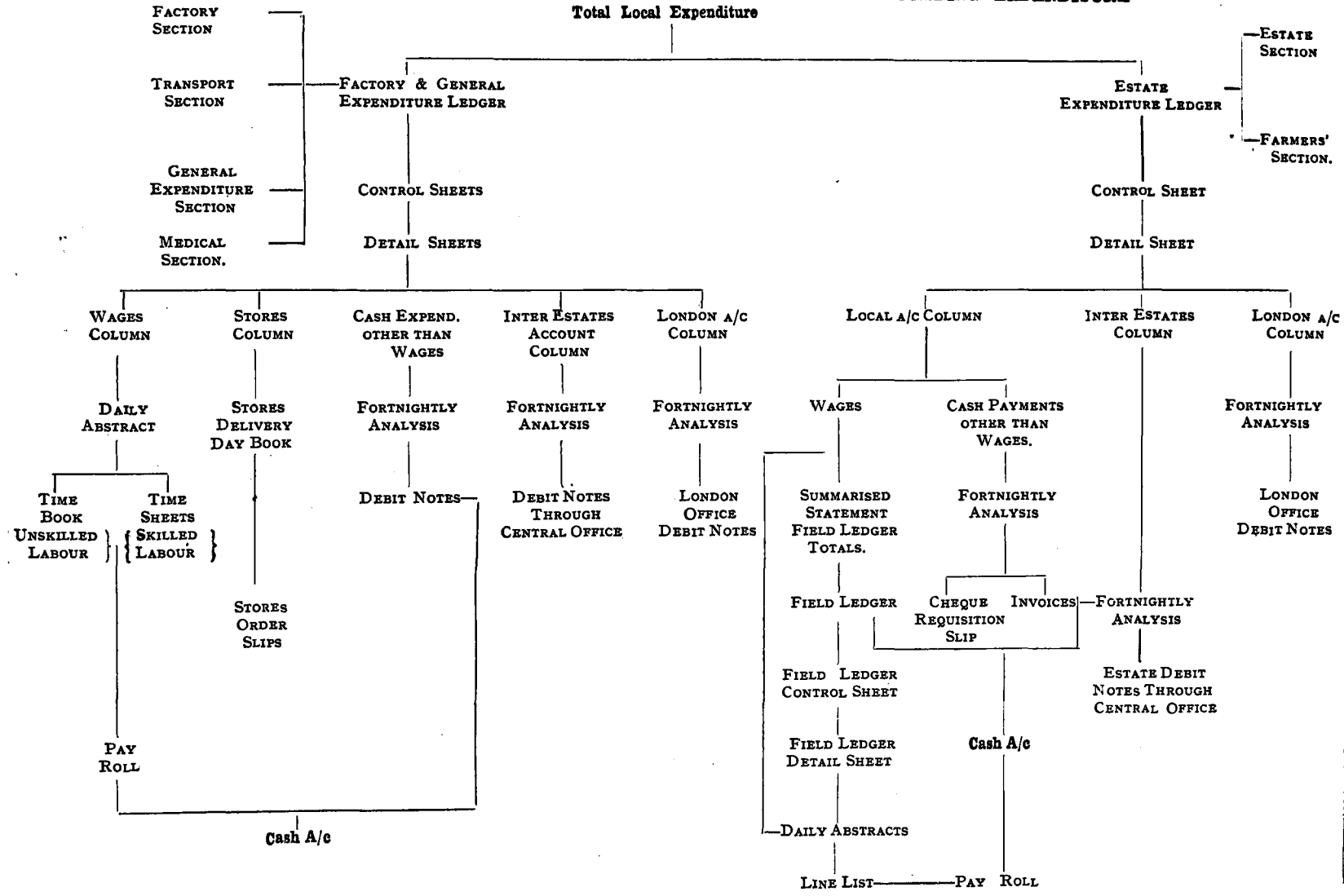
\* The money unit used is the Trinidad dollar and cent equivalent to 4s. 2d.

APPENDIX I—ORGANISATION CHART, STE. MADELEINE SUGAR CO., LTD.





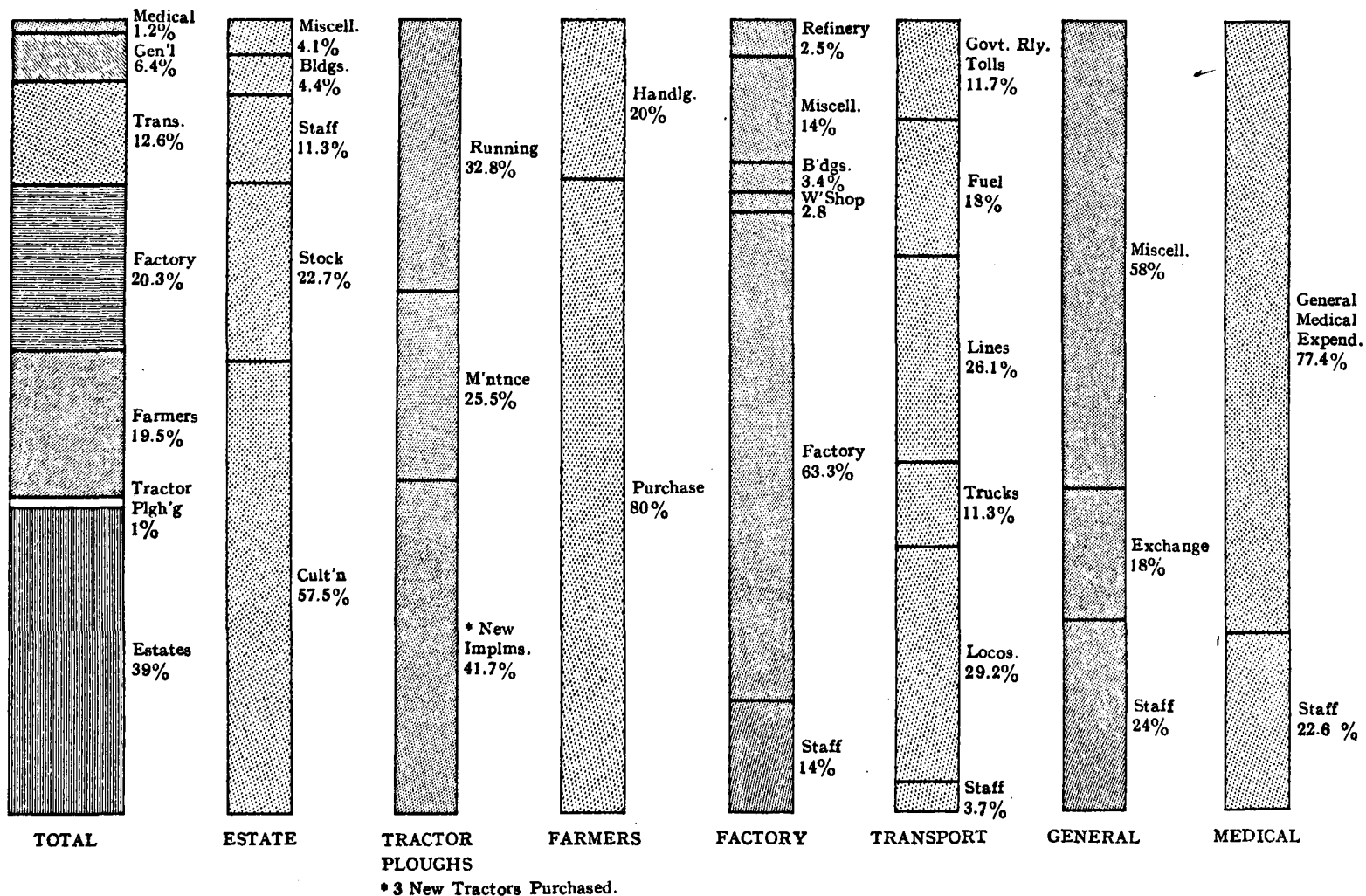
**APPENDIX 2.—DIAGRAMMATIC ANALYSIS OF THE METHOD OF RECORDING EXPENDITURE**



SUGAR COST ACCOUNTS.

SUGAR COST ACCOUNTS.

Sub-division of Expenditure.



APPENDIX 3.—PERCENTAGE DISTRIBUTION OF SECTIONAL EXPENDITURE ON SUB-SECTIONS.

\* 3 New Tractors Purchased.

APPENDIX 4.—DAILY ABSTRACT.

Daily Abstract for ..... { Union Hall Estate.  
Retrench Estate Section.

THURSDAY, 15TH DECEMBER, 1927.

No. of Field.	No. of Labourers.	No. of Animals.	Size of Task.	Rate.	No. of Tasks Worked.	DESCRIPTION OF WORK. (State exactly work done.)	Sec.	DETAIL.		TOTAL.		WHERE CHARGEABLE.
								\$	c.	\$	c.	
<i>Field Expenditure.</i>												
1/3 R	46		1 Ch	3 1/2 c.		Weeding 1/70, 1/55, 44/25.	M	12	25			
8R	12		1 Ch	5 c.		Weeding 1/50, 11/25	C	3	25	15	50	Handweeding.
39R	9		100	3 c.		Cutting Plants 1/50, 7/40, 1/20	M			3	50	Planting.
31/34 R	20		1 Ch	4 c.		Applying Pen Manure 1/50 2/30 2/25, 15/20.	M			4	60	Applying Pen Manure.
<i>Other Expenditure.</i>												
	1		D.	W.		Overlooker 1/70				0	70	Overlookers.
	1		"			Pen Attendant 1/40		0	40			
	2		"			Pasture Boys 2/25		0	50	0	90	Stockkeepers.
	1		"			Nurse 1/20				0	20	Children's Nurse.
	2		"			Cutting Litter 2/30.		0	60			
	7	5 Mules	"			Carting Litter 1/20, 3/40, 3/25		2	15	2	75	Making Pen Manure.

SUGAR COST ACCOUNTS.

SUGAR COST ACCOUNTS.

APPENDIX 5A.—DETAIL SHEET.—(White Paper.)

Cutting Plants. FRONT OF SUB-HEAD. PLANTING.  
R 39 M.

Date 1927.	No. of Field.	No. of Workers.	No. of Animals.	Day or Task.	DAY.		Fortnight.	Month.	Estimate.
					Amount.	Total.			
Dec., 12		10		T	3 00	3 00			
13		6		"	2 50	2 50			
14		7		"	2 80	2 80			
15		9		"	3 50	3 50			
16		12		"	4 55	4 55	16 35		

APPENDIX 5B.—DETAIL SHEET.—(White Paper.)

BACK OF SUB-HEAD.

Date.	TASK.			DAILY EARNINGS.																			
	Size.	Rate.	No. of Tasks worked.	10 cts.	15 cts.	20 cts.	25 cts.	30 cts.	35 cts.	40 cts.	45 cts.	50 cts.	55 cts.	60 cts.	65 cts.	70 cts.	75 cts.	80 cts.	85 cts.	90 cts.	95 cts.	\$1.00.	
December 12	100	3 cents.					4	5				1											
13	do.	do.								5		1											
14	do.	do.							2	4		1											
15	do.	do.				1				7		1											
16	do.	do.				1	1	1	8		1												

APPENDIX 6.—SUB-HEAD TOTAL SHEET.—(Blue Paper.)

PLANTING.

FIELD No. R 39.—Sec. M.

Date.	Particulars.	Details.	Total.	Total.	Date.	Particulars.	Details.	Total.	Total.
Dec., 23	Cutting Plants ...	16 35				Brought forward			
	Planting ...	16 00	32 35						

**APPENDIX 7A—FRONT OF FIELD EXPENDITURE CONTROL SHEET—(Pink paper.)**

UNION HALL ESTATE.		ACRES										TOTAL 17. 0. 09		PLANTS	AGE	RETRENCH SECTION.			
FIELD No. R 39												CULTIVATED 7. 0. 00.		M.	SECTION.				
Fort-night ending.	Digging Para Grass.	Prepar-ing Land.	Tractor Plough-ing.	Drill-ing.	Round Ridg-ing.	Sub soil-ing.	Plant-ing.	Pen Manur-ing.	Green Dress-ing.	Drain-ing.	Weed-ing.	Fork-ing.	App'g Art. Manure.	Reap-ing.	Total	Credits.	Net Total.	Cost Per Acre.	
Dec. 23		3 20				16 35	32 35		1 40	90					54 20		54 20	7 74	

**APPENDIX 7B.—BACK OF FIELD EXPENDITURE CONTROL SHEET.**

UNION HALL ESTATE.												RETRENCH SECTION.						
FIELD No. R 39.																		
Class of Soil	....	....	....	....	....	Black.												
Undulating or Flat	....	....	....	....	....	Undulating.	Acres	Total	17 0. 09	....	....	....	Plants 1929.					
How Planted	....	....	....	....	....	Across the Bed		Cultivated	7 0. 00	....	....	....	M Section.					
Variety	....	....	....	....	....	B.H. 10 (12).	Age when reaped	....	....	....	....	....	Tons. Per Acre.					
Date Planted	....	....	....	....	....	December, 1927.	TONS	Estimated	....	....	....	....	....					
Artificial Manure Per Acre	....	....	....	....	....	.....		Actual	....	....	....	....	....					
Date Applied	....	....	....	....	....	.....	Date Reaped	Commenced	....	....	....	....	....					
Pen Manure Per Acre	....	....	....	....	....	20 Tons.		Finished	....	....	....	....	....					
How Applied	....	....	....	....	....	Forked in Drill.	CHEMICAL ANALYSIS:	Cane % Sucrose	....	....	....	....	....					
Burnt Lime Per Acre	....	....	....	....	....	.....		Brix	....	....	....	....	....					
Date Applied	....	....	....	....	....	.....		% Sucrose	....	....	....	....	....					
Limestone Per Acre	....	....	....	....	....	.....		Purity	....	....	....	....	....					
Date Applied	....	....	....	....	....	.....		Tons Cane Per Ton Sugar	....	....	....	....	....					
REMARKS.—	.....										Tons Sugar Per Acre	....	....	....	....	....		
							Cost.	Total.	Per Acre	Per Ton.								

SUGAR COST ACCOUNTS.



SUGAR COST ACCOUNTS.

APPENDIX 9.—CONTROL SHEET IN EXPENDITURE LEDGER.—(Pink Paper.)

Entry for wage Expenditure on Making Pen Manure.

Fortnight ending 1927.		LOCAL ACCOUNT COLUMN.			Inter-Estate Accts.	London Accts.	Total.	Credits.	Net Total.	Estimate
		Wages.	Cash expend.	Total.						
Dec. 23	Cutting Litter ....	27	55							
	Carting Litter	47	10							
	Collecting Litter...	3	20							
	Cleaning Pens	5	20							
	Heading Bedding	20	65							
	Littering Pens ....	95		104	65			104	65	

APPENDIX 10.—DETAIL SHEET FOR CASH EXPENDITURE OTHER THAN WAGES.

PURCHASE OF FODDER.

LOCAL ACCOUNT.

						Fortnight.		Month.	
Nov. 11	Geo. F. Huggins & Co., Ltd.								
	12 Bags Oats at \$4.75 ....					57	00		
	5 Bags C.Nut Meal at \$2.00					10	00	67	00
Nov. 25	Geo. F. Huggins & Co., Ltd.								
	5 Bags Oilmeal at \$3.70					18	50		
	5½ Bags Fine Salt at 60 cts.					3	00	21	50
								88	50

N.B.—This form used for :—Local Accounts ; Inter-Estate Accounts ; London Accounts.

APPENDIX 11.—CONTROL SHEET IN EXPENDITURE LEDGER.—(Pink Paper.)

Entry for Cash Expenditure on Purchase of Fodder.

Fortnight ending 1927.		LOCAL ACCOUNT COLUMN.			Inter Estate A'cts.	London Accounts	Total.	Credits.	Net Total.	Estimate
		Wages.	Cash expend.	Total.						
Nov. 11	G. F. H. & Co.		67	00						
25	Do.		21	50	88	50			88	50

## APPENDIX 12.

List of Control Headings in Expenditure Ledger. Those marked \* also appear in Field Ledger.

*Cultivation :*

- Overlookers.
- \* Burying Trash.
- \* Stubble Shaving.
- \* Subsoiling (Fork).
- \* Subsoil Ploughing.
- \* Fork Ploughing.
- \* Tractor Ploughing.
- \* Harrowing.
- \* Round Ridging.
- \* Draining.
- \* Planting.
- \* Supplying with Stools.
- \* Do. do. Plants.
- \* Handweeding.
- \* Hoeing with Implements.
- \* Fork Moulding.
- \* Stripping Canes.
- \* Hauling Trash.
- \* Digging Para grass.
- Making Pen Manure
- Carting Town Manure
- Purchase of Lime.
- Purchase of Artificial Manure.
- \* Applying Pen and Town Manure.
- \* Applying Lime.
- \* Applying Artificial Manure.
- Clearing Pastures and Traces.
- \* Destroying Froghoppers and Pests.
- \* Green Dressing.
- \* Cutting Cane.
- \* Carting Cane.
- \* Heading Cane.
- \* Picking Cane.
- \* Loading Cane.
- Carrying Water.
- Working Derricks.
- Working Scales.
- New Derricks and Repairs.
- New Scales and Repairs.
- Purchase of Implements and Repairs.
- Destroying Mongoose.
- Experimental Plots.
- Nurseries.

*N.B.*—Charged to fields proportionately at end of year.

*Stocks, &c.*

- Purchase of Horses.
- Do. Mules.
- Do. Cattle.
- Do. Fodder.
- Forage.
- Grooms.
- Stockkeepers.
- Curry Combs, Brushes, &c.
- Building and Repairing Stables.
- Do. do. Carts.

*Stocks, &c.—Continued,*

- Harness.
- Farrier.
- Medicines.
- Silo Buildings and Repairs.

*Maintenance and Taxes :*

- Rates, Taxes and Insurance.
- Building Dwellings.
- Repairing Dwellings.
- Building Barracks.
- Repairing Barracks.
- New Buildings.
- Repairing Buildings.
- Land and House Rents.
- Water Supply.
- Latrines.
- Roads.
- Cleaning Yards.

*Staff, &c.*

- Manager.
- Overseers.
- Office.
- Watchmen and Messengers.

*Miscellaneous.*

- Rations and Advances to Labourers.
- Tools for Labourers.
- Travelling Expenses.
- Lighterage of Goods.
- Legal Expenses.
- Stamps and Stationery.
- Childrens' Nurses.
- Petty Expenses.
- Outside Jobs.

*Farmers.*

- Purchase of Estate Farmers' Canes.
- Do. Outside do. do.
- Working Scales and Derricks.
- New Derricks and Repairs.
- Do. Scales and do.
- Cane Weighers and Attendants.
- Reaping Farmers' Canes.
- Cutting Plants, &c., for Farmers.
- Supplying Water.
- Stationery.
- Roads.
- Overlookers.
- Petty Expenses.
- Grooms.
- Nurseries.



SUGAR COST ACCOUNTS.

APPENDIX 13.—FACTORY WAGES DAILY ABSTRACT.—(Russet Coloured paper.)

Saturday, 11th January, 1928.

	No. of Lab.	DESCRIPTION OF WORK. (State exactly work done)	Detail.	Total.	Total.	WHERE CHARGEABLE. (State heading in Ledger.)
	4	Firing B. & W. Boilers 2/90, 1/85, 1/80	3 45			
	3	Attending B. & W. Conveyors 1/1.20, 1/1.10 1/50	2 70		6 15	B. & W. Boilers R.
	6h	Turning up Valves for No. 2 B.		77		
	3h	Do. Shaft B. & W. Rotary Feeders		38	1 15	Boilers, &c. M.
	1	Repg. No. 1 Lined Juice Pump		70		
	1	Do. Juice Heaters		45		
	2	Do. Liming Tanks 1/1.20, 1/45		1 65	2 80	Liming and J/Heating M.
	1	Do. Mud Tanks		80		
	1	Do. Subsiders		70	1 50	Clarifiers M.
	2	Do. Filter Presses 1/1.00, 1/50	1	50		
	1	Do. No. 1 Scum Pump		90		
	1	Do. No. 1 Filtered Juice Pump	1	20	3 60	Filter Presses, &c.
	3	Do. Quadruples 1/1.20, 1/1.00, 1/50		2 70		
	1	Do. Callandria Pumps		1 15		
	1	Do. Rotary Juice Pump		90	4 75	Quadruples.
	1	Do. No. 1 Vacuum Pan		80		
	1	Do. 2 do.	1	00		
	1	Do. 3 do.	1	50		
	1	Overhauling Vacuum Pumps	1	20	4 50	Vacuum Pans.
Miscellaneous	26					
	1					
	27				24 45	

APPENDIX 14.—FACTORY WORKMAN'S TIME SHEET.—(White paper.)

Filled in Daily by Workman initialled by Foreman and Engineer and Turned into Time Office.

USINE STE. MADELEINE.	
WORKMAN'S NAME: J. Carter	DATE 11th February, 1928.
No. 641.	TRADE: Turner.
Turning Valve for No. 2 B. & W. Boiler from 7 to 11 a.m. and from 12 to 2 p.m. ....	.... 6 hours.
Turning Shaft for B. & W. Rotary Feeders 2 to 5 ....	.... 3 hours.



SUGAR COST ACCOUNTS.

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APPENDIX 17.—SUB-HEAD DETAIL SHEET FOR FACTORY RUNNING EXPENSES.—(White Paper.)

FIRING B. AND W. BOILERS.

Date.		Labour.	Material.	Cash Expenditure.	Inter-Estates Accounts.	London Charges.	TOTAL.
Feb. 11		3	45				
13		5	10				
14		5	10				
15		5	10				
16		5	10				
17		5	10				

APPENDIX 18.—SUB-HEAD TOTAL SHEET FOR FACTORY MAINTENANCE EXPENSES.—(Blue Paper.)

BOILERS, FURNACES AND CHIMNEYS.

MAINTENANCE.

Date.		Labour.	Material.	Cash Expenditure.	Inter-Estates Accounts.	London Accounts.	TOTAL.
Feb. 11	Rep. B. & W. Boilers	6	52	36	98		
	Rep. Rotary Feeders	4	58				
	Rep. B & W. Feed Tanks	4	70				
	Rep. Steam Range	2	74				
		18	54	36	98		55 72

APPENDIX 19.—SUB-HEAD DETAIL SHEET FOR FACTORY MAINTENANCE EXPENSES.—(White Paper.)  
(Same ruling as Appendix 17.)

REPAIRING B. & W. BOILERS.

Date.		Labour.	Material.	Cash Expenditure.	Inter-Estate Accounts.	London Accounts.	TOTAL.
Feb. 11		0	77				
12		1	15				
13		0	38				
14		0	77				
15		1	15				
16		1	15				
17		1	15				
		6	52				6 52

## APPENDIX 20.—A FACTORY OPERATION CONTROL SHEET.—(Yellow paper.)

## BOILERS, FURNACES AND CHIMNEYS.

## CONTROL A/C.

Date.		Labour.		Material.		Cash Expenditure.		Usine and Estates A/cs.		London Charges.		Total.	
	Running	78	05	6	95	10	00	20	00			95	00
	Maintenance	18	74	36	98							55	72
		76	79	43	93	10	00	20	00			150	72

## APPENDIX 21.—STORES ORDER FORM.

ORDER.	
<i>Storekeeper</i> :—Please supply and charge to Job No.....	
17 lb. Round Iron.	
¼ lb. Black Tape.	
1 lb. Nails	
¼ lb. Waste.	
1-¼ inch Valve.	
4 Handle Covers.	
Boilers DPT. B. & W. Boilers SUB-HEAD.	
Date : 11th February, 1927.	<i>Signature.</i>

## APPENDIX 22.—SHEET FROM STORES CHARGE BOOK.

SATURDAY, 11TH FEBRUARY, 1928.

						Total.	Running.	Maint'ce.
BOILERS, FURNACES AND CHIMNEYS.								
<i>B. &amp; W. Boilers.</i>								
17 lb. Round Iron	....	....	....	....	.03½	0	60	
¼ lb. Black Tape	....	....	....	....	.44	0	22	
1 lb. Nails	....	....	....	....	.03	0	03	
¼ lb. Waste	....	....	....	....	.09	0	01	
1-¼ inch Valve	....	....	....	....	1.02	0	86	
4 Hand Covers	....	....	....	....	1.61½	6	46	8 18
<i>B. &amp; W. Conveyors.</i>								
6 lb. Crater Compound	....	....	....	....	.08	0	48	
½ Gal. Engine Oil	....	....	....	....	.83		42	
¼ lb. Waste	....	....	....	....	.09	0	05	0 95

## SUGAR COST ACCOUNTS.

## APPENDIX 23.—MAIN HEADINGS OF FACTORY, TRANSPORT, GENERAL AND MEDICAL EXPENSE

<i>Running :</i>	<i>Maintenance :</i>
<b>Factory :</b>	
Salaries.	
Watchmen.	
Office Boys and Messengers.	
Weighing Cane.	Weighing Cane.
Rakes and Cane Carriers.	Rakes and Cane Carriers.
Mills.	Mills.
Boilers, &c.	Boilers, &c.
Liming and Juice Heating.	Liming and Juice Heating.
Clarifiers.	Clarifiers.
Filter Presses, &c.	Filter Presses, &c.
Quadruples.	Quadruples.
Vacuum Pans.	Vacuum Pans.
Crystallisers and Centrifugals.	Crystallisers and Centrifugals.
Condensers.	Condensers.
Water Supply.	Water Supply.
Electric Room.	Electric Room.
Lighting.	Lighting.
Marking, Packing and Delivering.	Marking, Packing and Delivering.
Cleaning Machinery, Yards, &c.	Cleaning Machinery, Yards, &c.
Laboratory.	Laboratory.
Factory Fuel.	Factory Fuel.
Handling Supplies.	
Sugar Bags.	
Shipping Sugar at Wharf.	Shipping Sugar at Wharf.
Molasses.	Molasses.
Refinery.	Refinery.
Distillery.	Distillery.
Workshop.	Workshop.
	Factory Buildings.
	Dwellings.
	Baracks.
	Sugar Warehouse.
	Factory Grounds, Roads and Fencing.
	Motor Cars.
	Incidentals.
	Locomotives.
	Trucks.
	Line.
	Government Railway Tolls.
<b>Transport :</b>	
Locomotives.	
Trucks.	
Line.	
Fuel.	
Government Railway Tolls.	
<b>General :</b>	
Salaries.	
Watchmen.	
Office Boys and Messengers.	
	Dwellings.
	Telephone.
Telephone.	
Produce Tax.	
Duty.	
Railway Taxes and Insurance.	
Exchange and Discount.	
Telegrams.	
Stationery and Postages.	
Travelling Expenses.	
Grounds.	Grounds.
Stables and Grooms.	Stables and Grooms.
Motor Cars.	Motor Cars.
Legal Expenses.	
Port-of-Spain Agency.	
Incidentals.	Incidentals.
<b>Medical :</b>	
Salaries.	
	Dwellings.
Hospital Expenses.	Hospital Expenses.
Medicines.	
Motor Cars, &c.	Motor Cars, &c.

## SUGAR COST ACCOUNTS.

## APPENDIX 24.—TRUCK TICKETS.

## ESTATE TRUCK TICKET—WHITE.

Tons.	Cwt.	Qrs.	Lb.		Estate—La Fortunee.	
9	4	0	—	Gross.	Truck No. 434	
3	4	2	—	Tare.	Date: 24th February, 1928.	
5	19	2	—	Nett	Time 4.45 p.m.	No. 13274

## FARMERS TRUCK TICKET—RED.

Tons.	Cwt.	Qrs.	Lb.		Estate—La Fortunee.	
10	4	0	—	Gross	Truck No. 652	
3	10	3	—	Tare	Date: 24th February, 1928.	
6	13	1	—	Nett.	Time 5.15 p.m.	No. 18643

The Overseer fills in the right hand side and the weights on the left are punched by the automatic weighing machine at the factory. Each Estate is provided with tickets bearing certain serial numbers, so there is no difficulty in tracing the ticket.

## APPENDIX 25.—DAILY TRUCK AND WEIGHT LIST.—(White Paper.)

## LA FORTUNEE ESTATE.

DATE 24TH FEBRUARY, 1928.

ESTATE CANE.									FARMERS CANE.										
Truck No.	Gross.			Tare.			Nett.			Truck No.	Gross.			Tare.			Nett.		
	T.	c.	q.	T.	c.	q.	T.	c.	q.		T.	c.	q.	T.	c.	q.	T.	c.	q.
22537										18024									
318	9	0	0	3	2	0	5	18	0	627	9	6	0	3	1	2	6	4	2
22334										18643									
5	16	8	0	4	19	1	11	8	3	652	10	4	0	3	10	3	6	13	1

SUGAR COST ACCOUNTS.

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APPENDIX 26.—DAILY RETURN OF TRUCKS LOADED.  
LA FORTUNEE ESTATE.

24TH FEBRUARY, 1928.

FIELD.		LOADING STATION.	Truck No.	Ticket No.	FIELD.		LOADING STATION.	Truck No.	Ticket No.
No.	Sec.				No.	Sec.			
16B	C.	Dickson Siding	48	22536			FARMERS.		
			318	37			Mosquito Creek	34	18627
			446	38			Do. do.	651	18028
			75	39			Do. do.	652	18643
			513	40					
			396	41					
			401	42					
34B	D	Pen Siding	426	22550					
			325	52					
37	D	Mosquito Siding	434	13274					

APPENDIX 27.—CANE TONNAGE ADVICE NOTE.—(White paper.)

N.B.—Sent by Factory Cane Checker to Estate daily together with completed truck tickets.

24TH FEBRUARY, 1928.

LA FORTUNEE ESTATE.

No. of Trucks	T.	c.	q.	T.	c.	q.
28	191	0	2	8	59	14
1092	7196	3	0	30	212	19
1120	7387	3	2	38	272	14

.....Checker.

APPENDIX 28.—ESTATE REAPING REPORT.—(Blue paper.)

REAPING REPORT—LA FORTUNEE ESTATE.

DATE 24TH FEBRUARY, 1928.

Field No.	Total Acreage.	Acreage Reaped. (a).	Variety (a).	Plants or Ratoons.	Age when Reaped.	Tons estimated.	Tons Reaped.	Tons per acre estimate d.	Tons per acre Reaped.	Reaping commenced.	Reaping completed. (c).
L.F. 37	7.3.08	7.3.08	BH10/12	2nd Ratoons	14 mos.	150	180.60	20	23.2	20/2/28	24/2/28

(a) If more than one variety give acreage under each except in cases where the varieties are mixed.

(b) If Ratoons state whether 1st ; 2nd ; 3rd ; &c.

(c) Date when field is finally "picked."

(d) This report is to be made up and sent into the office weekly with the cane return. Fields that are only partly reaped, or for which final weights have not been received, are not to be included.





APPENDIX 31.—CHEMIST'S REPORT.

Ste. Madeleine Factory.

RUN No.....

For Week ending.....192.....

I.—ANALYTICAL.

	This Week.	AVERAGE TO DATE.	
		This Year.	Last Year.
Cane —Sucrose %			
„ —Fibre %			
„ —Fibre/Sucrose Ratio			
Megass — AVERAGE —Sucrose %			
„ „ —Fibre %			
„ „ —Moisture %			
„ EAST —Sucrose %			
„ „ Fibre %			
„ „ Moisture %			
„ WEST —Sucrose %			
„ „ Fibre %			
„ „ Moisture %			
Juice CRUSHER Brix			
„ „ Purity			
„ Normal Brix			
„ „ Sucrose			
„ „ Purity			
„ „ Glucose			
„ „ Glucose Ratio			
„ DILUTED Brix			
„ „ Sucrose			
„ „ Purity			
„ „ Glucose			
„ „ Glucose Ratio			
„ LAST ROLL, AVERAGE Brix			
„ „ Purity			
„ LAST ROLL, EAST Brix			
„ „ Purity			
„ LAST ROLL, WEST Brix			
„ „ Purity			

## SUGAR COST ACCOUNTS.

## APPENDIX 31—CHEMIST'S REPORT—Continued.

Ste. Madeleine Factory.

. RUN No.....

For Week ending.....192.....

## I.—ANALYTICAL

		This Week.	AVERAGE TO DATE.	
			This Year.	Last Year.
JUICE CLARIFIED	Purity			
Syrup	Brix			
	Purity			
1st Massecuite	Brix			
" "	Purity			
2nd "	Brix			
" "	Purity			
3rd "	Brix			
" "	Purity			
1st Sugar—Y. CRYSTALS	—Polarization			
" "	WASHED — "			
" "	96° TEST — "			
Molasses 1st	Purity			
" 2nd	"			
" Final	" (Apparent)			
" "	" (Gravity)			
" "	Brix			
Filter Cake	Sucrose %			

SUGAR COST ACCOUNTS.

CHEMIST'S REPORT.—Ste. Madeleine Factory.

For Week ending.....19..... RUN No.....

II.—STATISTICAL.

		This Week.	TOTAL TO DATE.	
			This Year.	Last Year.
Canes Ground	tons			
Dilute Juice	gallons			
Do.	tons			
Water of Dilution	"			
Normal Juice	"			
Indicated Sucrose	"			
Available Sucrose (Winters Formula)	"			
Sugar, bagged—Y. CRYSTALS	tons			
Do. Washed	"			
Do. 96° TEST	"			
Do. 2nd "	"			
Sugar in process of Manufacture—96° Test	"			
Sugar total made and in process	"			
Final Molasses	gallons			
Do.	tons			
Filter Cake	"			
Fuel—Oil Consumed	"			
Do.—Wood	"			

III.—YIELDS AND LOSSES.

	This Week.	AVERAGE TO DATE.	
		This Year.	Last Year.
Mill Extraction, Normal Juice % Cane			
Do. Normal Juice Lost % Cane			
Do. do. % Fibre			
Do. Sucrose in Juice % Cane			
Do. do. lost Megass % Cane			
Do. Normal galls. per ton of Cane			
Do. do. do. Sugar			
Available Sucrose—% Cane			
Recovery Sucrose—% Cane			
Commercial Sugar—% Indicated Sucrose			
Do. % Cane			
Do. Calculated to 96° test % Cane			
Tons of Cane per ton of Commercial Sugar			
Sucrose Recovered % Available Sucrose			
Final Molasses—gallons per ton of Cane			
Filter Cake % Cane			

**CHEMIST'S REPORT.—Ste. Madeleine Factory.**

For Week ending.....19.....

RUN No.....

**IV.—SUCROSE BALANCE.**

		This Week.		AVERAGE TO DATE.			
		SUCROSE.		This Year.		Last Year.	
		In Cane.	In Juice.	In Cane.	In Juice.	In Cane.	In Juice.
Sucrose in Sugars	%						
" " Molasses	%						
" " F.P. Cake	%						
" " Other Losses	%						
" " Juice	%						
" " Megass	%						
" " Cane	%						

**V.—MILLING.**

		This Week.		To DATE.			
		EAST.	WEST.	This Year.		Last Year.	
				EAST.	WEST.	EAST.	WEST.
Canes Ground	tons						
Canes per hour	"						
Fibre	"						
Grinding Time	hours						
Hours Grinding	"						
Time Lost—Out of Cane	"						
Machinery	"						
Chokes	"						
Washing	"						
Steam	"						
Juice Room	"						
Other Reasons	"						
Total Time Lost							
Time Lost—% Grinding Time							
Time Grinding % Grinding Time							
Sucrose Extraction %							
		BOTH MILLS.		BOTH MILLS.		BOTH MILLS.	
Canes Ground	tons						
Canes per hour	"						
Fibre " "	"						
Grinding Time, Average	hours						
Hours Grinding	"						
Maceration	% Cane						
"	% Fibre						
Sucrose Extraction	%						

NOTE.—Totals and Averages to date are for corresponding Nos. of Run.

REMARKS on Week's Work:—

.....Chemist.  
.....Manager.

**CHECKED**  
**2003-04**

**CHECKED**  
**2003-04**