

COLLIERY  
OFFICE ORGANISATION  
AND ACCOUNTS

5/- NET

# COLLIERY OFFICE ORGANISATION AND ACCOUNTS

A GUIDE TO OFFICIALS IN A COLLIERY  
OFFICE, ACCOUNTANTS, Etc.

WITH NUMEROUS FORMS AND RULINGS

BY

J. W. INNES, F.C.A.

OF THE FIRM OF SWITHINBANK, INNES & CO.,  
CHARTERED ACCOUNTANTS

AND

T. COLIN CAMPBELL, F.C.I.

PRINCIPAL BOOK-KEEPER TO A LARGE COLLIERY COMPANY

LONDON

SIR ISAAC PITMAN & SONS, LTD., 1 AMEN CORNER, E.C.  
BATH AND NEW YORK

## PREFACE

THIS book is intended to be a Guide not only to Officials in a Colliery Office, but to students and others who take interest in our Coal Trade. It sets forth the main lines upon which the organisation of work in a Colliery Office should be laid down. It traces the financial history of a ton of Coal from Mother Earth to the consumer. The treatise is divided into three parts, the first dealing with the different channels through which the sales are effected, and showing how every ton of coal produced is accounted for ; the methods of its dispatch to the markets ; and how the various stages are recorded in the books. Part II deals with the costs. It includes the Purchases and Wages, and explains how the Purchases are passed through the Stores and entered in the Cost Sheets. A simple but efficient plan is laid down for the recording of the Wages of Underground and Surface Employees ; for the payment of Wages ; and for the ascertaining of the cost of all classes of labour connected with a Colliery. The Monthly Cost Sheet, which is really a monthly profit and loss account, is dealt with fully. Part III treats of the Trading or Revenue Account and of the Balance Sheet. The book has been compiled for practical use by practical men, and is the result of long years of experience.

# CONTENTS

## INTRODUCTION

DEPARTMENTS. CORRESPONDENCE, REGISTRATION OF, AND  
FILING. QUOTATIONS OF SELLING PRICES, CARD SYSTEM  
OF RECORDING AND FOLLOWING UP.

## PART I

### SALES

DESCRIBING HOW THE COAL IS RECORDED ON ITS ARRIVAL  
AT THE PIT-BANK. SCREENING, LOADING INTO WAGONS,  
WEIGHING, RECONCILIATION OF THE FIGURES OF PRO-  
DUCTION AND OUTPUT, METHODS OF DISPATCH TO THE  
CUSTOMER.

THE BOOKS OF ACCOUNT, CASH BOOK, PETTY CASH BOOK,  
TRANSFER JOURNAL, AND NOMINAL LEDGER.

COLLIERY WAGONS, TARING, JOURNEYS, ETC., HOW  
RECORDED.

CHAP.	PAGE
I. METHODS OF SALE ; RECORDING THE COAL ON THE PIT-BANK ; THE WEIGHING MACHINE AND ITS INFLUENCE ON SHORTAGE AND OVERWEIGHT . . . . .	1
II. THE SCREENS ; THE SIDINGS ; THE WEIGH OFFICE STAFF ; SLACK FROM THE WASHER ; COKE FROM THE COKE OVENS ; CONSIGN- MENTS OF COAL AND COKE BY RAIL . . .	6

CHAP.	PAGE
III. RAIL SALES ; RAILWAY WEIGH BOOK ; DAILY RETURNS SHEET, AND SYSTEM OF CHECKING	12
IV. WEEKLY STOCKTAKING OF COAL AND THE PERCENTAGES OF THE GRADES PRODUCED	17
V. THE DAILY RETURNS SHEET ; THE SALES DAY BOOK, ENTERING AND BALANCING, AND THE CHECKING OF THE INVOICES	19
VI. RIVER SALES ; DAILY RIVER SALES RETURN	22
VII. SHIPPING SALES ; ADVICES TO AGENT ; TRANSFER NOTES ; ENTERING OF THE COAL CONSIGNMENT BOOK ; STOCK AT PORT ; BALANCING THE CONSIGNMENTS WITH SALES AND STOCK	25
VIII. LAND SALES ; CREDIT, GENERAL, AND CASH SALES, ALSO HOME COAL SUPPLIED TO THE UNDERGROUND WORKPEOPLE ; AGENTS, THEIR FUNCTIONS AND RESPONSIBILITIES	29
IX. THE SALES JOURNAL	37
X. THE OUTSTANDING DEBTS BOOK ; TRAVELLERS' AND AGENTS' LIST OF ACCOUNTS FOR COLLECTION ; MONTHLY STATEMENTS ; CHECKING OF CUSTOMERS' PAYMENTS	40
XI. THE CASH BOOK ; CHEQUE AND RECEIPT CONSTITUTING VOUCHER ALL ONE DOCUMENT ; PETTY CASH ; BILLS RECEIVABLE AND PAYABLE ; TRANSFER JOURNAL	41
XII. ADMINISTRATION OF COLLIERY WAGONS AND THE RECORDING OF THEIR JOURNEYS	43

## PART II

COSTS, INCLUDING PURCHASES AND  
WAGES

THE STORES ; JOB NO. SYSTEM ; MATERIALS FROM STORES  
FOR UNDERGROUND AND SURFACE USE AND COSTS IN  
RELATION THERETO.

THE PURCHASE JOURNAL AND LEDGER ; PAYMENT OF  
ACCOUNTS.

UNDERGROUND AND SURFACE TIMEKEEPING SYSTEMS ;  
WAGES BOOKS AND PAYMENT OF WAGES ; KEEPING THE  
COST OF LABOUR.

WEEKLY COST SHEETS ; MONTHLY STATEMENT OF PROFIT  
OR LOSS.

SALE OF SCRAP IRON, METAL, ETC.

CHAP.	PAGE
I. COSTS ; PURCHASE OF MATERIAL ; ORGANISA- TION OF THE STORES ; RECEIPT AND ISSUE OF ALL GOODS TO AND FROM THE STORES ; CARD SYSTEM FOR RECORDING GOODS IN AND OUT ; STORES ORDERS ; CHECKING OF STOCK IN THE STORES . . . . .	47
II. HEADINGS OF COST ; JOB NO. SYSTEM ; STORES OUTWARD DAY BOOK ; STOCK LEDGER ; BAL- ANCING OF STOCKS ; STOCKTAKING . . . . .	57
III. INVOICES FOR GOODS PURCHASED ; THE PUR- CHASE JOURNAL ; THE PAYMENT OF ACCOUNTS . . . . .	65
IV. UNDERGROUND WAGES AND COSTS ; TIME- KEEPING SYSTEMS ; HEADINGS OF COSTS . . . . .	68

CHAP.	PAGE
V. SURFACE WAGES AND COSTS ; TIMEKEEPING ; COST HEADINGS ; JOB NO. SYSTEM APPLIED TO THE SURFACE WORKPEOPLE ; COST SHEETS, WAGONS, COTTAGES, WASHER, AND COKE OVENS ; TEAM WORK, OR CARTAGE . . . . .	78
VI. STOPPAGES . . . . .	92
VII. PAYMENT OF WAGES ; THE CHECK SYSTEM .	96
VIII. THE MONTHLY COST SHEET . . . . .	98
IX. SCRAP IRON, ETC. . . . .	100

## PART III

### THE BALANCE SHEET ; THE TRADING AND PROFIT AND LOSS ACCOUNTS.

I. THE BALANCE SHEET ; THE TRADING AND PROFIT AND LOSS ACCOUNTS ; DEPRECIATION	103
INDEX . . . . .	113

# LIST OF FORMS

FORM No.	DESCRIPTION	PAGE
1.	Card for Record of Quotations . . . . .	xiii
2.	Contract Book . . . . .	xiv
3.	Coal Drawn Sheet. (Vertical Method) . . . . .	2
4.	Coal Drawn Sheet. (Horizontal Method) . . . . .	3
5.	Wagon Weigh Book . . . . .	7
6.	Daily Statement of Coal Drawn, Wagons Loaded, Empties on hand, etc. . . . .	9
7.	Coal Order Book . . . . .	10
8.	Train Outwards Book . . . . .	} <i>bet. pp</i> 12 & 13
9.	Railway Weigh Book . . . . .	
10.	Declaration Form . . . . .	14
11.	Daily Returns Sheet. (Rail Sales) . . . . .	<i>bet. pp.</i> 20 & 21
12.	Coal Stock Book . . . . .	" " " "
13.	Sales Day Book . . . . .	" " " "
14.	Daily Returns Sheet. (River Sales) . . . . .	23
15.	Coal Consignment Book . . . . .	<i>bet. pp</i> 28 & 29
16.	Land Sales Day Book. (Credit Sales) . . . . .	" " " "
17.	Land Sales Day Book. (Cash and Credit Sales) . . . . .	" " " "
18.	Sales Journal . . . . .	44 & 45
19.	Outstanding Debts Book . . . . .	" " " "
20.	Wagon Book . . . . .	" " " "
21.	Requisition Book . . . . .	47
22.	Order Form . . . . .	49
23.	Goods Inward Book . . . . .	50
24.	Goods and Empties Outward Book . . . . .	52
25.	Storekeeper's Stock Card . . . . .	54
25A.	Storekeeper's Stock Card. (For use attached to Boxes in the Stores) . . . . .	55
26.	Stores Outward Day Book . . . . .	59
27.	Stock Ledger Sheet . . . . .	<i>bet. pp.</i> 60 & 61
28.	Stock Sheet . . . . .	63
29.	Purchase Journal . . . . .	<i>bet. pp.</i> 60 & 61
30.	Underground Wages Book. (Colliers) . . . . .	" " 68 & 69
31.	Underground Wages Book. (Day Men) . . . . .	71
32.	Underground Wages Book. (Colliers and Day Men combined) . . . . .	<i>bet. pp.</i> 68 & 69
33.	Underground Cost Sheet. (District) . . . . .	76
34.	Underground Cost Sheet. (Full) . . . . .	77
35.	Daily Time Sheet . . . . .	78
36.	Surface Wages Book . . . . .	80
37.	Surface Wages Allocation Sheet . . . . .	83
38.	Surface Cost Sheet . . . . .	85
39.	Surface Cost Sheet. (Alternative Form) . . . . .	87
40.	Rent Book . . . . .	<i>bet. pp.</i> 92 & 93
41.	Profit and Loss Account . . . . .	104
42.	Profit and Loss Account. (Abridged) . . . . .	107
43.	Balance Sheet . . . . .	109
44.	Balance Sheet. (Abridged) . . . . .	110



# Colliery Office Organisation and Accounts

---

## CHAPTER I

### METHODS OF SALE—RECORDING THE COAL ON THE PIT-BANK—THE WEIGHING MACHINE AND ITS INFLUENCE ON SHORTAGE AND OVERWEIGHT

THE sale of coal is effected usually through four channels, viz. :—

1. Coal conveyed by rail, technically called “ Rail Sales.”
2. Coal conveyed by barge, technically called “ River Sales.”
3. Coal conveyed in ships, technically called “ Shipping Sales.”
4. Coal conveyed in carts, technically called “ Land Sales.”

The pit-bank is situated either immediately above or adjacent to the screens which themselves are above the wagons standing in the sidings.

On the pit-bank there is a weigh office in which a weighman, representing the colliery company on the one hand, and a check-weighman, representing the miners on the other, weigh, and check, respectively, each corf of coal as it comes out of the pit, the weight of the coal being entered on the Daily Coal Drawn Sheet (see Forms Nos. 3 and 4) and placed to the credit of the man, or group of men working together, who have filled the corf in the pit.

The method of registering the weight is effected by a system of numbers. Each man (or group of men) is supplied with a series of these numbers which he takes down

## FORM No. 3. COAL DRAWN SHEET.

Date.....191..

Stall Numbers.																									
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
																									71
																									72
																									71
																									73
																									63
																									7
																									71
																									71
																									72
																									62
																									72
																									61
																									72
																									71
																									7
																									62
																									73

Figures below this thick line = Total from each Stall.

Thus from Stall 26, 17 corves filled weighing 122 cwt.

122

## FORM No. 4. COAL DRAWN SHEET.

Seam										Date 191..			
Number of Man.	Quantities.								No. of Corves filled.	Total Weight.			
										Tons.	Cwts.	Qrs.	
1	7 <sup>1</sup>	7 <sup>2</sup>	7 <sup>1</sup>	6 <sup>2</sup>	6 <sup>2</sup>	7 <sup>1</sup>	7 <sup>2</sup>	7 <sup>1</sup>	8	2	17	1	
2													
3													
4													
5													
6													
7													
8													
9													
10													
and so on for as many men or groups of men as work coal in that seam.										300	100	10	0

Seam.															
Number of Man.	Quantities.											No. of Corves filled.	Total Weight.		
													Tons.	Cwts.	Qrs.
51	6 <sup>2</sup>	7 <sup>2</sup>	7 <sup>1</sup>	7 <sup>2</sup>	6 <sup>2</sup>	7 <sup>1</sup>	7 <sup>1</sup>	7 <sup>2</sup>	7 <sup>1</sup>	7		10	3	12	0
52															
53															
54															
55															
56															
57															
58															
59															
60															
and so on for as many men or groups of men as work coal in this seam.											400	143	16	2	

the pit at the commencement of each shift. The "tally," or "motty" (a small metal disc) bearing his number is attached to each corf as it is filled with coal. When the corf arrives on the pit-bank the banksman who unloads the "cage," or "chair," takes off the motty, calls out its number to the weighman who weighs the corf and places the net weight of coal immediately underneath, or opposite

(whichever of the two forms is adopted), the same number on the Daily Coal Drawn Sheet.

At the end of the day the quantity of coal credited to each number is totalled. This total represents the actual quantity of coal which has been won by each miner, or group of miners working together, and the grand total of these weights is the total coal drawn out of the pit during that one day. The company's totals are ascertained by the weighman, and checked by the checkweighman on behalf of the miners. A statement of the tonnage drawn each day is sent to certain officials of the company and the Daily Coal Drawn Sheet itself is sent to the secretary to be entered up in the Wages Book.

The grand total on the Daily Coal Drawn Sheet is the quantity of coal paid for by the company to the men. After the coal has been screened and each quality and size separated, loaded into trucks and passed over the weighing machine in the colliery yard, it is checked in the following way. The sales of each quality and size are totalled, and stock is taken at the end of each working week, usually 2 p.m. on Wednesdays on the change of the morning and afternoon shifts. The sales plus the present stocks, less the stocks on the preceding Wednesday at 2 p.m., give the actual quantity of coal worked during the week. This should agree with the total quantity drawn as recorded on the Daily Coal Drawn Sheets for the six days.

In practice they do not agree, varying as much as from two to six per cent. shortage, and from one to two per cent. overweight. "Shortage," means that less coal is drawn than is paid for in wages, and "Overweight," means a surplus in favour of the company.

There are three principal reasons for these differences. First, the average tare weight of the corves may be wrong. Second, the vibration on the pit-bank owing principally to the working of the screens underneath is great enough to cause oscillation of the weighing machine; and third, the number of corves passing over the weighing machine is so

large that the weighman has not time to get the exact weight of coal in each corf before the next corf is pushed on the scale.

The first difficulty is overcome, of course, by a periodical taring of the corves. The second and third difficulties are minimised considerably, if not altogether surmounted, by the use of an automatic self-indicating weighing machine. It facilitates the rapid weighing of the corves which are all balanced to the same tare weight, and the actual net weight of coal is indicated automatically by the machine itself, dispensing with the handling of the machine by the weighman. The *modus operandi* is as follows:—A minimum weight is decided upon, say five cwts. where the average capacity of each corf is seven cwts. The quadrant usually indicates up to five cwts. over the minimum, thus allowing a variation of five cwts. in every corf of coal. For example, taking the fixed minimum weight at five cwts. the quadrant is marked from five cwts. to ten cwts., so that the weight of any corf of coal between five and ten cwts. is indicated automatically on the quadrant and is read off by the weighman at a glance. The tare weight, which is averaged and is, therefore, the same for all the corves, is allowed for separately. The range of weights, however, can be varied and altered to suit the requirements of any size of corves. A non-oscillating arrangement is attached which ensures the indicator settling quickly, thereby registering a reliable net weight.

## CHAPTER II

THE SCREENS—THE SIDINGS—THE WEIGH OFFICE STAFF—  
SLACK FROM THE WASHER—COKE FROM THE COKE OVENS—  
CONSIGNMENTS OF COAL AND COKE BY RAIL

IMMEDIATELY after the weighing of the coal on the pit-bank it is shot on to the screens, hard coal on one set and soft coal on another, these being the two general qualities as separated by the miners when filling the corves in the pit.

The several sizes of the coal are now separated by the screens, all dirt, shale, etc., being removed, or in other words the coal is cleaned, and from the screens the coal passes into the wagons standing underneath.

Usually, at least five pairs of rails pass underneath the screens and they are laid down on the "Bottleneck" principle. On one side of the screens the empty wagons stand ready to be loaded and they are placed beneath the screens as required. On the other side a sufficient length of roadway is provided on each pair of rails to allow, say, twenty wagons to stand ready to be taken by the locomotive to be weighed. The five pairs of rails merge into one pair of rails thus making the "Bottleneck." The weigh office is situated on the neck and then the lines open out again into as many sidings as are required for stock purposes. If two sides of the weigh office are made of glass the weighman can see the wagons waiting to be weighed, as well as the weighing machine, the object being to prevent any full wagons passing over the machine into stock without first being properly weighed and recorded.

The weighman is provided with a book called the Wagon Weigh Book (see Form No. 5) in which he records the date, owner, number, tare, quality, and weight of coal as each wagon passes over the weighing machine. These headings explain themselves and their different purposes. A column is also provided for remarks, so that the weighman

FORM No. 5.

## WAGON WEIGH BOOK.

Hards.

Date 1912	Owner.	Number of Wagon.	Tare. Tons. Cwts.	Net Weight. Tons. Cwts.	Remarks	Date.	Owner.	Number of Wagon.	Tare. Tons. Cwts.	Net Weight. Tons. Cwts.	Remarks
Sept. 1	Colliery	725	6 10	9 18							
" "	"	650	6 11	9 16							
" "	"	1500	6 6	9 19							
" "	E. P.	3	5 19	7 2							
Best Sept. 1	Colliery	740	6 10	8 18							
" "	J. C. S.	63	6 0	7 11							

And so on allowing a certain number of pages for each quality of coal and coke produced.

can note to whom the wagon is to be sent if it has been ordered for immediate dispatch, or the number of the siding in which it is to be placed in stock. The book should be divided into sections, a certain number of pages being allotted to each quality of coal.

The wagons containing coal ready for sale are stored in the sidings but those containing slack are sent to be unloaded at the washer, which is debited with the quantity of slack sent. Some collieries have mechanical means for conveying the slack direct from the screens to the washer. The slack is there washed and screened into three or four sizes, the nuts and pea nuts being saleable, the smudge being dispatched to the coke ovens and the remainder being used in the colliery fireholes to stoke the boilers.

At the washer the sizes are screened into separate hoppers which are situated above the rails on which the wagons stand to be loaded. This railroad merges into a single pair of rails which is connected with the weigh office.

The weighman possesses a second Wagon Weigh Book in which he records the products of the washer other than the smudge which has been sent direct to the coke ovens.

The smudge is loaded from the washer hoppers into pans, each pan when fully loaded containing a certain weight, and each coke oven is charged with a stipulated number of pans. Thus the actual tonnage dispatched to the ovens each day is ascertained from the number of ovens charged on that day.

Sometimes the quantity of smudge sent to the ovens is ascertained in another way. The average tare weight of the pans being known, each pan when fully loaded passes over an automatic self-indicating weighing machine with totaliser attached and the total weight for the day is registered on the machine itself.

When the coke is made, the ovens are "drawn" and the coke sorted into qualities.

In the second Wagon Weigh Book are entered the various grades of coal received from the washer, whether for sale or for the fireholes, also the several qualities of coke drawn



FORM No. 6.

DAILY STATEMENT OF COAL DRAWN, WAGONS LOADED, EMPTIES ON HAND, ETC.

TONS. CWTS.

Output from Colliery----- Date-----191..

	Hards.	Best.	Sec- onds.	House Nuts.	Washed Single Nuts.	Washed Pea Nuts.	Smudge	Cruc- ible Coke.	Four- dry Coke.	Breeze.	Total.	Re- marks.
Wagons Loaded	50	6	6	6	10	5	—	4	7	1	95	
.. Coll'y.	—	6	3	4	—	—	—	—	—	—	13	
.. Private	40	6	6	3	5	3	—	2	6	—	71	
Wagons Dispatched	—	6	3	4	—	—	—	—	—	—	13	
.. Private	—	3	2	2	3	2	—	—	—	—	12	
Orders Unexecuted	2	4	5	7	—	—	—	—	—	—	18	
.. Private	—	—	—	—	—	—	—	—	—	—	200	
Empties on Hand	2	4	—	—	—	—	—	—	—	—	18	
.. Coll'y.	10	—	5	7	5	2	—	2	1	1	24	
Full Wagons in Stock	—	—	—	3	—	—	—	—	—	—	24	
.. Private	—	—	—	—	—	—	—	—	—	—	68	
Wagons Returned Home	1	2	1	3	—	—	—	1	2	—	10	
.. Coll'y.	—	—	—	—	—	—	—	—	—	—	—	
.. Private	—	—	—	—	—	—	—	—	—	—	—	

Other details of a similar nature may be entered on this Statement ; the above is an outline of what is usually done.