

STORES LEDGER										SYMBOL							
CONCORD TYPEWRITER COMPANY, INC.										LOCATION							
SIZE _____ GRADE _____										_____							
KIND _____										_____							
USED FOR _____										_____							
WHEN AVAILABLE FALLS TO _____ REQUISITION IN QUANTITIES OF _____ PURCHASE TIME ALLOWANCE _____										_____							
WHEN TOTAL ON HAND FALLS TO _____ ADVISE PURCHASING AGENT _____										_____							
INSTRUCTIONS FOR POSTING: (4) When Purchase Requisition is written, add quantity ordered to 1-A and 3. (5) When quantity is received, subtract quantity received from 1-A and add quantity accepted to 2, making any necessary adjustment to 3. (6) When quantity is issued, subtract from 2 and 3. Note—Balance in 3 should always equal sum of Balance on Order (1-A) and Balance on Hand (2).										_____							
1			1A			2			3			4					
REQ'D ORDERED			INVOICED BAL. ON ORDER			ACCEPTED			ISSUED AND BALANCE ON HAND			AVAILABLE ON ORDER AND ON HAND			APPORTIONED		
DATE	QUANTITY	PRICE	DATE	QUANTITY	PRICE	DATE	QUANTITY	PRICE	DATE	QUANTITY	PRICE	DATE	QUANTITY	PRICE	DATE	QUANTITY	PRICE

Fig. 3. Balance of Stores Ledger.

PARTS LEDGER											
CONCORD TYPEWRITER COMPANY, INC.											
A—DAYS ALLOWED TO MANUFACTURE _____											
B—PRODUCTION PER DAY _____											
C—WORKING DAYS FOR FINISHED PART _____											
ALL QUANTITIES IN SETS _____ NUMBER OF PARTS PER SET _____											
WHEN AVAILABLE FALLS TO _____ SETS ORDERED IN QUANTITIES OF _____ SETS											
ORDERED		TRANSFERRED		PROCESS		TRANSFERRED		FINISHED		AVAILABLE	
DATE	QUANTITY	DATE	QUANTITY	DATE	QUANTITY	DATE	QUANTITY	DATE	QUANTITY	DATE	QUANTITY

Fig. 4. Parts Control Ledger.

tools it is only necessary to specify those needed for a certain operation and part number. Upon the completion of an operation all tools, together with from fifteen to twenty-five of the last parts made by each tool and a tool service slip giving the number of parts made and commenting on the condition of the tool, are sent to the tool inspection section. A careful inspection is made and if any defects are found the tool is immediately sent to the tool room to be conditioned. Upon completion of the conditioning of the tool it is returned to the tool inspection section, is again inspected, and if approved is placed in its proper location in the tool crib with the last parts made and is ready for use.

(b) Classification

Product. Our machine is made up of parts which we manufacture from raw material, parts which we purchase ready for immediate use (these being parts such as key rings, which we can buy in great quantities very much cheaper than we can make them), and purchased parts on which we have to perform some manufacturing operations, as for example, rubber platens. Our routine cards show exactly what classification the parts belong in and what manufacturing operations, if any, are performed.

Parts which we buy and on which no operations are performed are ordered from a balance of stores ledger (Fig. 3) the same as raw material and are sent directly

into finished parts stock. Parts which we purchase and on which we do perform manufacturing operations are treated as raw material and are carried on the balance of stores ledger. All parts, no matter what their classification, are carried in a parts control ledger (Fig. 4) with a sheet assigned to each part number. Details of the use of the parts control ledger are given under the description of our planning methods.

Operation Control. All operations for each part, with information as to the department in which each process is performed, are contained in a routine card made up by the methods division. This has been described under "STANDARDIZATION—Mechanical Methods." The routine of handling work in planning centers is given in the planning center clerk instruction sheet which shows the standard time keeping methods which have been found best in facilitating the work of costing and pay roll keeping, and the methods of properly handling, counting, and moving the work through the various manufacturing operations. Major planning is handled by the control board section of the route division of the planning department. This section posts on its control board the various manufacturing orders with lot sizes, time for completing the work and group of machines on which the work is to be performed. The instruction cards issued to the operators for all operations are described elsewhere.

DETAIL RECORD OF METHOD OF OPERATION		FINGER POLISHING JACK		SECTION OF PIECE AND OPERATION PERFORMED
NO. OF OPERATIONS	DESCRIPTION OF EACH OPERATION	TIME TAKEN	TOOL USED	OPERATION PERFORMED
1	OPERATOR WORKS SITTING DOWN. TAKE TWO PIECES FROM PAN ON TABLE AT SIDE OF OPERATOR AND PLACE ON HOLDER, ST 312. ROUGH OUT ONE SIDE FOR FULL LENGTH. DROP FINISHED PIECES IN PAN ON TABLE AT SIDE OF OPERATOR. REPEAT THIS MOVEMENT UNTIL ALL PIECES IN LOT ARE COMPLETED. CHANGE WHEEL.	1000 HOURS	120 GR. WHEEL	Diagram of work to be performed. Movements No. 1-2-3. Polish the entire surface for the distance shown below.
2	TAKE TWO PIECES FROM PAN ON TABLE AT SIDE OF OPERATOR AND PLACE ON HOLDER, ST 312. ROUGH OUT ONE SIDE FOR FULL LENGTH. DROP FINISHED PIECES IN PAN ON TABLE AT SIDE OF OPERATOR. REPEAT THIS MOVEMENT UNTIL ALL PIECES IN LOT ARE COMPLETED. CHANGE WHEEL.	11	150 GR. WHEEL	Diagram of work to be performed. Movements No. 4-5. Polish the entire distance shown above. Must be standard. Followed Finish No. 1. High grade. Fine plates and well colored.
3	TAKE ONE PIECE FROM PAN ON TABLE AT SIDE OF OPERATOR AND PLACE ON HOLDER, ST 312. FINE OIL ONE SIDE FOR FULL LENGTH. LAY FINISHED PIECE IN PAN ON TABLE AT SIDE OF OPERATOR. REPEAT THIS MOVEMENT UNTIL ALL PIECES IN LOT ARE COMPLETED. CHANGE WHEEL.	11	180 GR. WHEEL	Diagram of work to be performed. Movements No. 6-7. Polish the entire distance shown above. Must be standard. Followed Finish No. 1. High grade. Fine plates and well colored.
4	TAKE ONE PIECE FROM PAN ON TABLE AT SIDE OF OPERATOR AND PLACE ON HOLDER, ST 312. COLOR ONE SIDE FROM ROUND END TO WITHIN 2" OF SLOT. LAY FINISHED PIECE IN PAN ON TABLE AT SIDE OF OPERATOR. REPEAT THIS MOVEMENT UNTIL ALL PIECES IN LOT ARE COMPLETED.	11	200 GR. WHEEL	Diagram of work to be performed. Movements No. 8-9. Polish the entire distance shown above. Must be standard. Followed Finish No. 1. High grade. Fine plates and well colored.

NOTE—TINKER MUST BE USED ON ALL MOVEMENTS. ALL WHEELS IN DIA. 5" FACE. BLOCK WHEELS.

Y50		OPERATION NO. 12		OPERATION NAME: POLISH LASSIDE		CONCORD TYPEWRITER CO.		PURPOSE OF THIS SHEET:	
DATE	OPERATOR	OPERATOR	OPERATOR	OPERATOR	OPERATOR	OPERATOR	OPERATOR	OPERATOR	OPERATOR
1	ROUGH OUT	2	FINE OIL	3	COLOR	4	DISASSEMBLE OFF AND CHANGING WHEELS	5	ASSEMBLE OFF AND CHANGING WHEELS
<p>NOTE: When possible record time for each sub-operation for accurate costing of work, according to time study of each work. Record should be recorded in each sub-operation in all jobs. Operator must provide necessary work in working section for Production Time and Method Time and from every operation on the part or amount of operation is recorded. That of necessary sub-operation is not recorded. The proper operation is recorded. The work is recorded and the proper and correct number of speed and tool are used. It is the duty of the operator to record the time for each sub-operation for a lot and to record the time for each operation. Operator must record a sufficient number of times to give a true time for the operation. For each sub-operation.</p>									
TOTAL AVERAGE: 1.40 MIN. 1.60									
7-19-20									

Fig. 5. Time Study Observation Sheet, Front and Back.