
Raw
Material
Supply

RAW MATERIAL SUPPLY

Raw Material Limits -

A limit is made for every item of raw material on the following basis: On all raw material purchased in the U. S. the limit will be 1/6 of the previous years consumption to be in force from Sept. 1st to May 1st. Beginning May 1st to Sept. 1st limit to be reduced 1/2. Limit on all material bought in the city to be 1/12.

This 1/6 limit equals about six weeks consumption and as it requires about four weeks from date of order for delivery it allows a margin of safety of about two weeks. Limit on all imported raw material to be 1/3. This equals twelve weeks consumption and as it requires eight weeks for delivery allows a margin of safety of four weeks. This limit to be reduced 1/2 on April 1st and increased Aug. 1st.

Imported Rough Varnish Gum limit to be 1/2. This equals five to six months consumption and as it requires four months from date of order for delivery it allows a margin of safety of about one to two months. Any gum with stock at 2/3 of consumption needs attention. Sorted gums should not be allowed to get above 1/6 limit. Cannot cut gum limits to good advantage at any time. Limit on 1, 16, 2C and 112 to be 1/12 with standing order equal to consumption - to be reduced May to Sept.

	Monthly Total Cleveland Output			Monthly Varnish Output		
	03	04	Average	03	04	Average
Sept.	6 1/8%	9	8	5	7 1/8	6
Oct.	9 1/8	12	11	8	9 1/8	8 1/2
Nov.	7 1/2	8	7 1/2	8	7 1/8	8
Dec.	10	10	10	7 1/2	10	8 1/2
Jan.	8 1/2	7	8	6	6	6
Feb.	9	9	9	11 1/2	8 1/2	10
Mch.	10	10	10	9	10	9 1/2
Apr.	9 1/2	9	9	7	8 1/2	8
May	8 1/2	9	9	16	12 1/2	14
June	9	6	7 1/8	7 1/8	8 1/2	8
July	6 1/2	5	6	12	5	8 1/2
Aug.	5 1/8	6	5	2 1/2	6 1/2	4
	100%	100%	100%	100	100	100

Form A 9 filled out complete for each Raw Material used.

R No.	Inv. 1903	Cleve. Purchased 1904	Total Available 1904	Total Inv. 1904	Total Cons.	Limit	Std. Order
1	199,319	1,528,136	1,727,455	152,938	574,517	200	1 car 10 das.
2	10,366	22,500	32,866	5,167	27,699	15	
3	37,923	94,800	132,723	13,589	119,134	50	
4	36,315	119,882	156,197	39,534	116,663	65	

Ordering Raw Material -

All raw material is under the direct charge of the storekeeper. Every Thursday afternoon all stock in the Receiving & Stores Dept. is recorded on the weekly report of raw material. It is not necessary to count this stock every week but once a month must be carefully counted. Stock in use in the various grinding departments is also reported though the general plan is to consider stock already delivered to these departments as consumed. This stock is then recorded on the B 16 raw material stock record card in the Factory Office thus making a perpetual inventory record. A somewhat similar record is kept by the storekeeper on which he notes all receipts and deliveries to departments. The office B 16 card is made out at the beginning of the year showing the raw material number, name, limit and the inventory.

Invoices for all raw materials are recorded showing the date of the invoice, order number, date of receipt, quantity, invoice price, charges, full cost, value, supply house and brand.

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On the reverse side of the card the shipments to the other warehouses is recorded. Each week as the stock is recorded on this B 16 card a requisition, Form A 7, is made out in duplicate showing the quantity required to bring the stock up to the limit, raw material number, name, the present stock and limit. This is sent to the General Superintendent's office for approval and is then by him forwarded to the Purchasing Department. The Purchasing Dept. then places the order as outlined in the system of Purchasing Dept. sending a copy of the order to the Factory Office, thus advising them that the goods have been ordered. This order number is then noted on the duplicate copy of the A 7 requisition which was retained in the Factory Office, the tally being forwarded to the storekeeper, thus giving the factory a live record of all raw material on order. The Purchasing Dept. is responsible for the matter from the time they get the requisition until the goods are delivered at the factory. This involves the proper following up of such shipments, the Receiving & Stores Dept. keeping them informed as to the condition of the stock as outlined in the Receiving & Stores Dept. system.

As soon as the raw material is received a sample is sent to the testing room as explained in the Receiving & Stores system and none of the material is delivered until it has been passed upon by the testing room. The return of the envelope is the proper notification to the storekeeper that the goods are accepted. A careful record is made of this and in no case are goods delivered to a department until after this test

General Care of Material

As outlined in the department system, every possible care is exercised to keep the stock in proportion to the consumption. A definite place is assigned for each material and as the material is delivered in cars or otherwise it is placed at the earliest possible moment, care being taken to place it in such a way that the oldest stock may be used up first. Material is then delivered to the various departments as required.

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OUTLINE OF SYSTEM IN PURCHASING DEPARTMENT

MAXIMS:

(1) No orders written up except from a requisition peoperly approved.

(2) Verbal orders don't go - No order placed except through the Purchasing Department.

(3) Prices should always be known before orders are placed.

(4) Something better at the same price - the same thing at a better price.

REQUISITIONS:

When requisitions from various departments are received, memorandum is placed on the same indicating where purchase shall be made. In case articles called for are not staple goods or have not been purchased before, prices are obtained and placed on requisition. Requisition then passed over to typewriter and order written up on proper blank. (Form 84 C.A.) (Cleveland)

The Sundry requisitions are unnumbered and are filed according to the departments from which they are issued. (In order number) The Mdse. requisitions (which are numbered) are filed numerically.

ORDERS:

All orders written in triplicate on typewriter. The yellow tally goes to receiving clerk and the white tally, or third or file copy, goes into the tickler.

THE TICKLER:

With all out of town orders or delay orders, an acknowledgment blank is enclosed (Exhibit 1.) orders are placed in tickler a day or so after acknowledgment can be expected. After acknowledgment is received, it is attached to order (copy) and place in tickler changed to a day or so after date that papers showing shipment has been made, can be expected. If acknowledgment does not come or shipment is not made within reasonable time (Exhibit 2.) is sent out (or in urgent cases a letter or wire), and order moved forward and so on, until invoice is received. Then order is removed from tickler and placed in separate file of "goods on the way", where it remains until tally arrives from receiving clerk, when it is cleared out and put into permanent file.

A separate record is kept of the dates of all orders in the tickler, so that on arrival of acknowledgments or invoices they may be easily located for changing or clearing out as necessary.

LOCAL ORDERS:

Local orders are tickled alphabetically. Date when delivery ought to be made is placed on order copy - Clerk goes through this tickler each morning and picks out all orders marked with that date for which receiving clerk has not reported delivery. These are taken up by phone, and if goods cannot be delivered that day, gets promise and tickles ahead to that date, etc.

For purposes of ready reference, each order, after being written up, is entered numerically in a book, showing order number, firm name and department (if Sundry) or raw material number (if Mdse).

INVOICES:

Invoice when received should be checked against order copy and tally, after which price is O.K'd and invoice, (if Sundry) passed to recording clerk for entry on

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cost cards. If tally is not in, invoice is held until goods arrive. When there are freight charges, invoice should be stamped "S-W. Co. Pays Frt." or "S-W. Co. Pays No Frt." according to terms of purchase.

FREIGHT BILLS:

All freight bills applying on shipments ordered by Purchasing Dept. are sent direct to receiving clerk, who checks weight, thence to Traffic Manager, attached to tally, who checks freight rates, thence to Purchasing Department where they are forwarded attached to invoice, to Accounting Dept.

SUNDRY COST CARDS:
(Exhibit 3)

These constitute a card system arranged alphabetically according to "article". The articles covered by each invoice are entered on their proper cards, showing date of purchase, firm name, size and quantity of article, price, order number and any other necessary information in the "remark" column. These cards show the amount of any one article purchased over a given time, the variation in price over the same time and other information necessary to the Purchasing Dept. They also show the date, quantity and cost of the last purchase of a similar article.

After invoices have been checked for quantity and price, they are grouped according to the departments to which they are to be charged and stamped with the name of such department. (Exhibit 4) Each group is then placed in corresponding administration envelope and sent to Accounting Dept. where extensions are verified - thence with dummy abstracts to proper department - still in envelopes - and back to Accounting Dept. for payment.

PHONE ORDERS:

It has been found most practical to phone orders for certain staple articles. The following pertains to orders for cases:

Phone all box requisitions to the Box Co., get from them their order number and place it on requisition at night. send written confirmation of the orders phoned during the day (Exhibit 6). When the dray are received, check the requisitions with corresponding number and compare the slip with invoice.

URGENT WANT SLIPS:

When an "Urgent Want" slip is received, fill out original with all information at command and return to factory. Then get after the R. R. Co. and keep after them. Have them trace and if they have no record, notify shipper to trace, keep duplicate slip as memo. until shipment is in.

DUNNING NOTICES:

Often inconvenience is experienced due to shippers delay in sending invoice, so that goods are received and tallied before invoice arrives. In such cases mail (Exhibit 8) to shipper.

DUPLICATE AND LOST INVOICES:

The system of Administration Envelopes, has eliminated much of this. If, however, a duplicate invoice is needed, pass it through in the regular way if it has never before been entered by Purchasing Dept. If original has been entered and subsequently lost, use (Exhibit 9) on the duplicate. This stamps it as a duplicate and is a check on double entry and double payment.

CREDIT MEMOS AND RETURNED GOODS:

When invoice is incorrect or credit memo needed, correct original invoice and pass along. Notify shipper and when credit memo comes, send to Accounting Dept. for their use in checking statements. If invoice has been passed along and is later found to need correction, check credit memo and pass along in Administration envelope.

CATALOGUE FILE:

The best catalogue file is one arranged after the manner of a book case, in which all catalogues or pamphlets are numbered, and entered in a cross index card system (Exhibit 10) under (1) the firm name, and (2) the article. The catalogues may be arranged on the shelves with reference to their size, which renders their appearance more uniform, while the cross index makes them readily accessible.

GENERAL FILING:

All Purchasing Dept. correspondence is filed in separate cabinet. General letters are filed alphabetically under firm name. Letters regarding prices or containing information about articles of interest are checked and entered on cross index card system under (1) firm name and (2) name of article (Exhibit 10).

CHANGED ORDERS:

When it is found necessary for any reason to change an order after it has once been written up (Exhibit 11) should be used and sent to both the department issuing original requisition and to the receiving clerk, so that he will have notice of the change when the goods arrive, otherwise, they would not check up with the order as shown on the yellow tally.

When a change is necessary after the requisition has been received by the Purchasing Dept. but before the order has been placed, the word "order" on (Exhibit 11) may be changed to read requisition, and the blank returned to the department issuing the original requisition.

CHANGE IN PRICE:

When there is a change in the price of any article (Exhibit 12) should be used in the way we have noted on slips which we have sent you. This does not refer to unimportant sundries, but primarily to merchandise and to such changes as will effect the manufacturing costs. Duplicate should be sent by you to this office. Copies of all merchandise orders should be forwarded to this office, also copies of all contracts covering supplies.

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RECEIVING & STORES DEPARTMENT SYSTEM

General Rules

The senior clerk is expected to look after the Store Room in general, keep the journal and records in so far as the storekeeper may direct. He should be made familiar with all the details pertaining to the Stores & Receiving Dept. The junior clerk, in addition to attending to the delivery of supplies, will sweep and dust the Store Room daily and do such other work as the Storekeeper or the senior clerk may direct. Particular attention should be paid to keeping the Store Room shelves clean and everything in its own place.

Ordering of Store Room Supplies -

Make it a point to order supplies at end of each month: i.e. - make limit of one month on stock purchased in town and two on goods which the Purchasing Dept. find it necessary to buy elsewhere, such as soldering irons, spatulas, etc. At times the Storekeeper will find it necessary to order stock at intervals during the month owing to a heavy demand for certain articles. Go carefully over the limits and while good judgment will have to be exercised in the following out of said limits, they can be adhered to in the majority of cases. Consumption of some stocks vary monthly - a good plan is for the Storekeeper or his assistants to go over the shelves carefully once or twice a week, or oftener if time will allow, and in this way he can get a line on just what stock is in need of replenishing. Keep in close touch with the foremen of the other departments and by so doing the Storekeeper can gain information which will be helpful in the ordering of some of the stocks - mention Mechanical Department in particular. In this department the consumption of bolts, screws, etc, vary according to the number of jobs on hand. Requisitions for supplies should be made out on Form 34 M showing plainly the size and quantity required and sent to the Factory Office for approval. Said requisition is then passed on to the Purchasing Department where an order is made out in triplicate, one of which comes back to the Receiving Office as a tally to be held until the goods arrive.

Tallying of Store Room Supplies -

If the articles received are O.K. sign tally and return to Purchasing Department. Tallies for various other supplies ordered by any of the other departments also come from Purchasing Department to Receiving Clerk and should be treated in same manner. See that the articles ordered by the other departments are delivered promptly after receipt and if in some cases there is a doubt as to whether the goods received are not just what is needed, confer with the head of the department who placed the order and find out all particulars before sending in the tally - this obviates a great deal of trouble both in the return of goods, the matter of credits and so on. It happens at times that a dealer may not have the articles specified on our order and take it upon himself to send something "just as good". The something "just as good" may fill the bill - it is good policy once in a while to work along this line rather than antagonize a customer. Of course good judgment will have to be exercised in such cases and then the price as well as the lasting qualities must not be overlooked.

Partial Tallies -

Often a dealer cannot fill our order in full and in such cases tally the goods on partial receiving tally slip Form H 7 3 and send to Purchasing Department in the regular way, keeping record on the regular tally until completed.

Store Room Delivery -

The junior clerk is expected to deliver all sundry articles to the different departments immediately upon receipt of requisition sent in by messenger or upon a phone request - delivery does not include rags which are called for by the janitor of each department first thing in the morning. The Store Room boy, however, is expected to deliver rags to Testing Room, C.D.A and General Office. . D. of P. call for all their supplies. Prompt delivery should be the order of the day as the dept. ordering may be in urgent need of supplies.

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Store Room Credits -

Store Room supplies are given out to the different departments on requisitions Form 34 M which should be signed by the head of each department. After being priced they are sorted out in date order and assembled together then totaled at end of month in a statement charging to each expense account. Rags used in each department can be consolidated and one entry made at end of month and should be charged at an advance of 1/4¢ per pound to cover cost of handling. Divide the rags ordered by Oil & Japan Dept. as follows:

Oil & Japan	30%
Filling	60%
Storage	10%

This is the only department where a division is made of rags. All requisitions from other departments should show clearly just what floor the rags or other articles are to be used.

Bills -

Bills for Store Room supplies come from the General Accounting Department and the prices entered on the regular price cards, M 9. All bills should be carefully examined before being entered to see if the quantity, etc agrees with what was ordered and received. All bills should be entered and approved the same date as received, it being important that they should go back to the Accounting Department for payment without delay. After they are approved and entered properly, send to Factory Office in the Administration envelope with a memo showing the balance.

RAW MATERIAL

Ordering -

Raw material is ordered by the Chief Clerk of the Factory Office who bases orders upon limits and the weekly reports sent in by Storekeeper every Thursday evening on Form A 6. If some stocks are below limits a cross should be placed opposite the entry on the weekly report so that the attention of the party ordering may be especially attracted.

Tallying -

The Purchasing Department will send to Storekeeper a duplicate of the order on Form 64 Ca and when the goods are received said order should be stamped and returned to Purchasing Department showing the gross, tare and net weights, and any remarks it may be found necessary to make concerning the condition or otherwise. Tallies should also show the route by which goods reached Cleveland and if carted by our wagons should bear the regular cartage stamp. On receipt of tally and entry on B 16 cards, if order seems exorbitant a Raw Material Surplus Stock Report, G 26 b is to be filled out at once and sent to Factory Office.

Partial Tally -

If only part of the goods are delivered, make partial tally on Form H 7 a and send to Purchasing Department in the regular way, keeping record on original until completed.

Raw Material Stock Cards -

All deliveries should be entered on stock cards Form B 16 and a full record of same should also be kept in the daily receipt book. (Book #26)

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Consumption -

The different departments using raw material and names of foremen are as follows:

A	Department	Jake Myers
B	"	Phil Styer
C	"	A. A. Sims
D	"	E. F. Highley
E	"	E. R. Seward
O	"	J. E. Bradley
V	"	P. D. George

Each department is expected to order stock by phone, the bulk generally first thing in the morning, orders to be entered on Form A 3 and handed to the foreman of the Yard gang for immediate delivery - prompt delivery is essential. Oldest stock is to be delivered first. For the morning delivery the Yard force is divided into two sections as follows: one for A - C and E Depts., the other B - D - O and V Depts. In the evening slips above mentioned should be signed by the head of each department and handed to Storekeeper who enters the deliveries on stock cards Form B 16 and files slips in date order - keep slips for a couple of months and then destroy. At this time if Storekeeper notices that a stock is being used more largely than we have provided for an Urgent Want slip Form G 25 is to be put in.

Weekly Report -

A weekly report of stock on hand should be made out every Thursday from the stock cards on Form A 6 and sent to Factory Office. This report can be made accurately by noting the daily consumption carefully as well as the deliveries.

Monthly Report -

All raw material should be carefully counted at least once a month by the foreman of the Stores & Receiving Dept., it being important for several reasons.

Tin Plate -

The receipt and storage of tin plate comes under the head of the Stores & Receiving Department also and is worthy of close attention. It should be counted at least once a month. The tin plate is taken by the Tin Can Dept. as needed and a report sent to Storekeeper daily on Form F 10 which should be noted on stock cards as in the case of the other raw materials. Follow out the principle of seeing that the old stock is used up first - keep piles so arranged that this can be done without hampering the storage capacity. In making out the weekly report, see that a copy is sent to the foreman of the Tin Can Dept. so he can know just what stock is on hand.

Marking of Tin Plate -

The number and date of receipt should be stencilled on all boxes, so that if anything is wrong with the tin the lot can be traced back without any trouble.

Gums & Rosins -

As in the case of tin plate the Gums and Rosins are taken by the Varnish and Oil Depts. as required and a report sent to the Storekeeper daily showing the consumption which should be carefully noted on stock cards - these stocks should be counted once a week.

Weighing and Marking of LCL lots -

All small lots should be carefully weighed and the date of receipt and Raw Material number marked on each package - takes very little time to mark date of receipt on the barrels as they come in and this helps greatly in tracing shipments and acts as a guide to the foreman as well as the other men with him in seeing that old lots are used up first.

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Weighing of CL Lots -

In the case of CL lots it has been the rule to weigh say a half dozen barrels from each car. Exception must, however, be made in the case of foreign shipments, it being essential to weigh and mark date on every package.

Sampling -

All raw material should be sampled when received and one sample sent to Testing Room and the other to the Laboratory in sample envelopes Form K 2. All Manufactured Dry Colors only one sample sent to Testing Room and none to Laboratory. Out of carload lots take two or three good samples or as many as Testing Room may direct. Every barrel of small shipments should be sampled and numbered so that if anything is wrong with the goods the package can be easily located. Barrels should be samples as near center as possible. In the case of tin plate, make out regular sample envelope for each and send to Tin Can Dept. foreman who will test - say five boxes of each lot and report as in the case of the other raw materials. All sample envelopes are returned to Storekeeper for file and should not be destroyed without definite instructions from Factory Office. Stocks should not be used until a report as to quality is given out by Testing Room - this is important. When sample envelope is returned it should be entered in book showing receipt of all raw materials and at end of month a report is to be sent to Superintendent showing what samples have not been O.K'd.

"Do not use from this pile"

Red cards Form G 24 bearing the words "Do not use from this pile" should be tacked onto piles which are not intended to be used until directed by Storekeeper or his foreman - they will be found especially valuable when taking inventory.

Urgent Want Slips Form G 26 -

This blank is to be made out by the Storekeeper just as soon as the stock of any material gets down to a point where an immediate shipment must be made to insure the arrival of further supply before the present stock becomes exhausted entirely. Generally speaking the time to make out this urgent want is when the stock is down to one fourth of the limit. It should also be used when the Storekeeper expects the consumption is likely to be unusually heavy in the immediate future such as is the case when we receive an exceptionally large order. They should be numbered consecutively and should be made out in triplicate showing all possible information regarding the present stock, how long it will last and all information at hand regarding the amount in transit or amount on order. A record should be kept of these slips as they are made out to insure their prompt return and in case they are not returned to the Storekeeper within four or five days they should be immediately followed up. If shipment is already in transit the Bill of Lading is to accompany sent through to Purchasing Department, the Storekeeper noting on the triplicate that Bill of Lading has been sent.

The Storekeeper will send two copies to the Chief Clerk in the Factory Office who will pass them on to the Ass't. Gen. Supt. It will then be forwarded to the Purchasing Department with any such additional remarks as may be required.

These urgent wants should receive prompt and careful attention in the Purchasing Department who will notify the shipper that an immediate shipment is required, asking for an immediate response. On receipt of this reply it should be noted on one copy which will be returned to the Ass't. Gen. Supt. who will in turn pass it over to the Chief Clerk who will then forward it to the Storekeeper. The Purchasing Department will keep the other copy on file to follow up the shipment and receipt of the goods, their attention to the shipment not to cease until the goods are received in the Factory.

A memorandum will be sent to the Purchasing Department each week with the weekly Raw Material orders showing all items which may require special attention. This will include all goods mentioned on urgent want slips as well as some others. This to be returned to the Factory Office with such notations as the Purchasing Department may make. This form should also be used for sundries.

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Raw Material Surplus Stock G 26 b -

If Storekeeper receives notice of an order placed or receives a shipment of stock which seems exorbitant a G 26 b is to be filled out and sent to Office immediately to notify of surplus stock.

Old Stock -

An Old Stock Card Record is to be kept, keeping a card for each item of old stock with all information about possible consumption and orders for disposition. A monthly report is to be drawn off from this showing all surplus stock on hand in all departments.

Shipment of Raw Material to Other Factories -

Orders will be received from Stockkeeper and goods gotten out and order sent back to him. Purchasing Department may order supplies to come here to be re-shipped to other factories. Tally will be so marked when received. Storekeeper will make out a factory charge slip - no charge - on which to keep record of shipment of these goods.

Raw Material Stock Out -

This report should be made daily showing any raw material stock out and holding orders with other detail as to department, date and quantity ordered, promise, etc. If nothing is out and holding orders on any day it should be sent in marked "Nothing Holding".

Daily Report of Movement of Cars - G 1 4 a

This daily report is made out to show cars on track including ash and coal cars, and sent to Factory Office first thing every morning and forwarded to Traffic Department.

RETURNED GOODS

Goods returned by customers for various reasons should be promptly and carefully tallied on Form 45 M a in triplicate with remarks as to actual condition, B, date and so on. The original and duplicate should be sent to the Trade Sales Department who will note on the duplicate slip the reason for return. They pass said slip to the Factory Superintendent who advises what disposition should be made of the goods in the place provided for the purpose, and he will return the duplicate slip to the Stores & Receiving Department.

If goods should go back in stock, make out a proper tally on Form D 5 and put at A elevator, being careful to put such articles as go to the different floors on a seperate slip. If goods should be dumped, deliver to the department where such goods are made with a tally similar to the one above referred to. On all shipments which go to a department to be dumped be careful to note on tally reasons for return as well as the name of the party or parties who sent in the goods.

Occasionally a slip will be returned bearing notation of a C. & C. - in the majority of such cases the goods or a part thereof are generally wanted in Testing Room for examination as to whether the complaint is justified, but such slips are invariably so marked.

After the goods are disposed of send slip to Factory Office for entry. A record of the disposition should be kept on the triplicate slip which is on file in the Receiving Office . Be particular about showing on the slips the route by which the goods came back - the driver will be in a position to advise the R.R. and this data is essential in the placing of freight bills etc.

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If the Receiving Clerk or his assistants are not in position to check up the goods have a reliable person from the yard force attend to the work. The tallying of returned paint should be looked after very promptly and carefully because the credits to customers are very often based upon the report sent in by the Receiving Clerk and if a careful tally is not made it causes trouble not only with the customer but all around. Freight bills will come from the Purchasing Department and the Receiving Clerk is expected to note on each one the name of the party returning the goods as well as the number of the slip, and send back to the Trade Sales Dept.

Barrel Cleaning -

Empty Zinc barrels etc are collected about the factory and taken to N 1 to be cleaned. In the evening they are taken over to A 1 for the use of the Packing Rooms. Daily report of the number cleaned should be sent to Factory Office every evening on Form D 15. This work comes under the head of "Job Orders" and closed the 25th of each month, the job order to be sent back to Factory Office showing the total number cleaned and any incidental expenses incurred such as nails etc.

Elevator -

B Elevator comes under the Stores & Receiving Department and the man in charge in addition to running the elevator is expected to sweep E 2 and D 2 - he can easily perform this work and not interfere with prompt service on the elevator.

Janitors -

There are two janitors in the Stores & Receiving Dept., one of whom is expected to take care of A 1 and A 2 and G2 as well as A and C Yards. He is also expected to look after the cleaning out of the Factory Office water tank and all the cuspidors in the A and C Buildings including Club Room. In addition he should take care of A stairway, also the one leading from G 4 to A 5 and remove the rubbish from Dining Room daily, also see that roof of G Annex is kept clean. The other janitor is one of the two who looks after the delivery of water in the morning and after this service is done he is expected to look after the cleaning of M 1 and M 2, S 1, N 1 and N 2 and B Yard, and also the cleaning of cuspidors in the departments west of B Building.

Yard Force -

During the busy season the Yard Force is made up of one foreman and seven men, while during slack months four men are expected to attend to work in the Stores & Receiving Dept. including the foreman.

Placing of Cars -

Written instructions should be given the D. & O. R. R. for the prompt and proper placing of inbound cars on Factory track on Form G 16 a, which should be handed to the Yard clerk of the D. & O. when he calls in the morning. Desired data can be obtained from the Bills of Lading and Raw Material orders.

Hauling of Rubbish -

Arrangements have been made with a man by the name of C. Martin to haul away the rubbish which accumulates in our B and C Yards. One load per day will keep the yards in good condition. A ticket should be handed the man with each load bearing the stamp of the Storekeeper only. Particular attention should be paid to seeing that the yards are kept clean.

Laundry -

Clean towels are delivered to the offices and each department on Monday and Thursday mornings - the senior store room clerk looks after the Factory Office and the needs of all on the C. C. side and the junior all the other departments. The dirty

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towels are gathered in when the clean ones are delivered and should agree with the number on the former delivery. The dirty towels should be taken to the laundry early in the morning of the following day. Wash days are Tuesday and Friday. The cost of washing etc is entered in Store Room journal at the end of each monthly account as follows:

Hand Towels	3/4¢ each
Roller "	1¢ "
Bath "	2¢ "
Special "	1/2¢ "
Dusters	1/4¢ "

The specials and dusters are for the exclusive use of the General Office. The expense of running the laundry is entered on a monthly job order and the total expense entered as a debit - this includes all repairs to laundry etc. At the end of each year the amount charged to each department is assembled to see how it compares with the cost of running the laundry and all incidental expenses. The lady who does the washing is expected to report to Storekeeper every Tuesday and Friday morning.

Water Delivery -

There are two delivery wagons which are expected to supply water to all the departments first thing in the morning - one taking all the departments West of E Building and the other all East, including the C.O. Building. Each man should report to Storekeeper if water is not perfectly clear.

Ice -

The janitor of A Building looks after the delivery of ice to all departments on Factory side first thing in the morning.

Job Orders -

Requisitions for supplies to be used on job order work should in all cases bear job order number and the requisitions should be entered in job order journal daily and sent to Mechanical Department for entry. Job orders are closed on the 25th of each month and the total of the job order is entered in Store Room journal as a credit.

Factory Slips Form B 10 -

These slips are numbered consecutively and are used in connection with the sale of second hand barrels, scrap iron, etc, and also for the shipping of sundry articles from Factory. If when used for the shipping of sundry articles from Factory, the slip should go with the goods to Shipping Clerk. If used for second hand barrels, scrap iron and tin etc sold to Barrett Mfg. Co., Johnson & Jennings or Sacheroff, they should bear the signature of the driver of each load and be sent to Factory Office. Keep a record of all slips in book.

REPORTS

		Form	Send to
Daily	Fire	G 11	Factory Office
	Cars Received and unloaded	G 14 a	"
	Raw Material Orders Holding	G 25	"
Weekly	Raw Material on Hand	A 6	Chief Clerk - Factory Office every Thursday
Monthly	Store Room		Factory Office
	Debits & Credits	FS	"
	Old lots of Raw Material on hand	"	"
	Consumption of bail wire and wire solder	"	"
	Consumption, stock and deliveries of raw materials appearing on Form A 49 b		"

0007-SWP-00012205

FOREMEN AND NAMES OF DEPARTMENTS

A Mixing		Jake Myers
A Filling		John Gibbons
A Packing		John G. Weber
B Mixing		Phil Styer
B Filling		John Stohlsteimer
B Packing		H. Austan
C Mixing		A. A. Sims
C Filling		A. A. Sims
C Packing		F. Weber
D Mixing		E. F. Highley
D Filling		E. F. Highley
E Mixing		E. R. Seward
E Filling		E. R. Seward
Engineer		C. A. Scholvien
Mechanical		F. W. Ballard, M.E.
"		Lester Davis Ass't. M.E.
"	Machine Shop	E.W. Keller
"	Carpenter "	C. Weir
"	Pipe "	H. Wedlake
"	Electrical	F. Tennant
Laboratory		E. C. Holton
Oil & Japan		J. E. Bradley
Varnish		P. D. George
Stockkeeper	(Mf'd Goods)	John G. Weber
Storekeeper	(Raw Material)	C. L. Fancher
Testing Room		E. W. Lutes

The foremen of all the Packing Departments report to JohnG. Weber, the Stockkeeper, while the foremen of A-C-D and E Departments look to E. W. Lutes for advice.

0007-SWP-00122060

STANDARD TESTS FOR DRY COLORS

Test #1 Test for all Whites: Mix sample and standard with (14) and run together on a white card. This will show any variation in color. These whites should also be examined carefully for fineness.

Test #2 Regular Color Test: Mix five grains of color with the correct number of drops of oil to the consistency of a stiff paste and grind. Spread on glass with five grains of standard sample mixed with the same quantity of oil and ground to the same degree of fineness. The quantity of pigment used must vary according to the bulk, i.e. - 2 grains of colors such as 101-27,etc are sufficient whereas with such colors as 29-60 etc 10 grains will be required to make sufficient stuff to be easily handled. For strength test take 2 grains of color, mix with two drops of oil and mix with 20 grains of test white. This should be ground and spread upon glass and compared with two grains of the standard color mixed in the dame way with oil and test white and carefully ground to the same degree of fineness.

Test #3 Test for Red Lead, Orange Mineral, etc. Take 10 grains of the color, mix with the required number of drops of oil to a consistency of stiff paste and spread on glass. It is not necessary to grind such colors. Neither will a strength test be necessary.

Test #4 Test for Rose Pink, etc. Use the regular color test, but for strength mix five grains of color with one part of 55 Dry, grind and compare with the standard sample mixed in the same way.

Test #5 Vermilion Test: Make a regular color test using ten grains of color instead of five. For strength test mix five grains of color with five grains of 261 to be ground and spread on glass. Compare with the standard sample mixed in the same way and ground to the same degree of fineness.

Test #6 Lake Test: Make regular test for color. For strength test mix five grains of the Lake with five grains of 127. These to be ground and compared with five grains of the standard sample mixed and ground to the same degree of fineness.

Test #7 Green Test: Make a regular test for color. For strength test mix one part of color with four parts of 32 Special. These to be ground and compared with the standard sample mixed in the same way and ground to the same degree of fineness.

0007-SWP-000122061

D. C. No.	Test No.	
1	1	
2	1	
3	1	
4	1	
5	1	
6	1	
8	1	
9	1	
10	1	
11	2	- For strength use only 1/4 gr. color to 20grs. of test white
13	2	
14	2	
16	1	
17	2	- 1 gr. color for strength test
19	2	
20	1	
21	2	
22	2	
23	2	
24	2	
25	2	-) Also spread very thin on glass and compare for undertone
26	2	-)
27	2	-)
29	3	
30 L	3	
30 D	3	
31	2	
32	2	) Use 1 grain for strength test
32 S	2	)
33	1	
34	2	
35	2	
36	2	
39	2	
42	2	
45	1	
46	2	- Use 1 gr. for strength test
50	1	
51	4	
53	3	
54	2	) Use 1 gr. for strength test.
55	2	)
57 LL	2	
57 L	2	
57 M	2	
57 O	2	
58	2	
59	2	
60 P	5	
60 D	5	
61	2	
62	2	) No strength test necessayy
63	2	)
67	4	
74	2	)
75	2	) No strength test necessary.
76	2	)
80	2	
83	2	- No strength test necessary
84	2	
85	2	
91	2	

0007-SWP-000122062

D.C.No.	Test No.
92	2 - Use 1/4 gr. color to 20 grs. test white for strength
97	2 - No strength test necessary
98	2
101	2 - Use only 2 grs. for color test. Use only 1/4 gr. of color to 20 grs of test white for strength.
103	2 - No strength test necessary
104	2 - Use only 2 grs. for color test. Use only 1/4 gr. of color to 20 grs. test white for strength test.
105	2
109	2 - Use only 1 gr. for strength test.
112	1
116	2
120	2 - Use only 1 gr. for strength test.
123	2
126	5
127	5
132	2
134	2 - Use only 1 gr. color for strength test.
136	2
138	2
139	2 - No strength test necessary
140	2
150	6
153	6
156	2 - Use only 1/4 gr. color for strength test. Test for fineness only
158	
163	2 - Use only 1 gr. for strength test
164	6
165	2
169	2
170	5
171	7
172	7
173	7
174	7
175	7
177	5
180	2
181	2 - No strength test necessary but test for fineness.
182	2
183	2 - Use only 1 gr. for strength test.
184	2
189	7
191	1
192	6
194	2
195	2
196	2
197	2
198	2
199	2 - Use only 1 gr. for strength test
200	2
201	5
202	5
203	2
204	2
205	2
206	2
207	6
214	2 - Use only 1 gr. for strength test.
215	5
216	Test for fineness only.

0007-SWP-000122063

D. C. No.	Test No.
223	6
231	2
233	2
234	2
235	2)- Use only 1 gr. for strength test
236	2)
238	5
240	5
241	5
248	2
249	2
251	2 - No strength test necessary. Test for fineness
261	6
263	5
265	1
271	5
273	5
275	5
281	2 - 1/4 gr. color to 20 frs. of test white for strength test.
287	2
290	5
292	Test for brilliancy and fineness
304	2 - Use 1 gr. for strength test
305	2
306	1
524	7
525	2
526	2
527	2
528	5
533	Brilliancy and fineness
542	2 - Same as 104
543	2
549	6
550	6
551	2 - Same as #11
552	1
554	2
555	2
556	2
558	2
565	2
569	2
572	7
574	6
577	1
582	7
583	7
584	7
591	2 - Same as 104

0007-SWP-000122064

(6) Dries on glass in 16 hours.

(7) Grind 2 oz. 46 Dry - 2-1/4 oz. (7) (by weight)
2 oz. of this paste reduced with 1 oz. (14) by weight.
This black is then painted on a board properly prepared with primer and filler and should dry in 45 minutes so cannot be rubbed up in varnishing.

(9) 2 parts (9)
6 parts (2)
Spread on glass and should dry in from 8 to 10 hours. Should not curdle or settle.

(16) Dries on glass in 24 hours.

(19) 2 parts (19)
2 parts (2)
Spread on gladd should dry in 8 to 10 hours. Dhould not curdle or settle.

(25) 2 parts (25)
6 parts (2)
Spread on glass should dry in 8 to 10 hours. Should not curdle or settle.

(28) Dries on glass in 8 hours.

(29) Dries on glass in 10 hours.

(31) 1 part (31)
7 parts(2)
Dries on glass in 8 to 10 hours. Should not curdle or settle.

(34) Dries on glass in 8 to 10 hours

(37) Dries on glass in 2 hours and should not be brittle in 24 hours.

(50) Dries on glass in 5 hours.

(55) Dries on glass in 24 hours

(56) Dries on glass in 5 to 6 hours

(86) Dries on glass in 5 hours.

(106) 2 parts (106)
6 parts (2)
Dries on glass in 8 to 10 hours. Should not curdle or settle.

(183) 1 part (183)
10 parts (2)
Dries on glass in 8 to 10 hours.

Gravity is measured by a Westphal balance and is shown thus - .9341 Gravity
The body is measured by an arbitrary standard shown in 7 vials marked 60 - 65 - 70 75 - 80 - 85 - 90. 60 to 70 body is too heavy for good practice. Varnishes of this body would sag, wrinkle, skin over the top etc. 70 to 75 is the proper body for Finishing Varnishes and other similar long oil Varnishes. 75 to 80 is proper for Rubbing, Polishing and similar short oil Varnishes. 80 to 90 is proper body for Dipping Varnishes, 1st Coaters, Mixing Varnishes, Japans, etc. It is really too thin for a good floss Varnish. The body of a Varnish may be any point between these shown in the standard vials and is always specified thus - 77 Body.

0007-SWP-000122065

Test of Oil, Varnish
& Japans.

10-8-06

Dear Sir:

Standard tests for circle numbers in numerical order, as approved by Gen'l Supt. of the Varnish Mfg. Dept.

(1). (2) and practically all Linseed Oils are tested for color, body, specific gravity and weight.

(6). Tested for color, body, specific gravity and drying: spread on glass; should dry in 15 hrs.

(7). Tested by grinding 2 oz. 46 Dry (by weight) 2¼ oz. (7) (by weight). This is thinned by using 2 oz. by wieght of the paste and 1 oz. by wieght of (14). This is applied on properly prepared panel that has had a coat of primer and filler. Should dry in from 50 to 60 minutes, hard enough not to rub up under the Varnishing.

(8). This is spread on glass and should dry in from 4 to 6 hrs. Tested also for color, body and specific gravity.

(9). 2 Oz. of (9) 6 oz. of (2) should dry in 8 to 10 hrs. Spread on glass. Tested for color, body and specific gravity, and not curdle in mixing.

(13). Color, body and specific gravity. Also spread on glass; should dry in 24 hrs.

(14) Tested for color, specific gravity and wieght.

(17) " " " " " " drying. 2 parts of (17) and 6 parts of (2) Spread on glass; should dry in 8 to 10 hrs. and not curdle in mixing.

(19) Tested for color, specific gravity and drying. 2 parts (19) and 2 (2). Spread on glass; should dry in 8 to 10 hrs and not curdle in mixing.

(21) Tested for color, body, specific gravity and drying. Spread on glass and should dry in 8 to 10 hrs.

(25) Tested for color, body, specific gravity and drying. 2 parts of (25) and 6 of (2). Spread on glass; should dry in 8 to 10 hrs. and not curdle in mixing.

(28) Color, body, Specific gravity and drying. Spread on glass; should dry in 8 hrs.

(29) Color, body, specific gravity and drying. Spread on glass; should dry in 8 hrs.

(31) Color, body, specific gravity and drying. 1 part of (31) 7 parts of (2). Spread on glass; should dry in 8 to 10 hrs. and not curdle in mixing.

(37) Color, body, specific gravity and drying. Spread on glass; should dry in 2 hrs and not become brittle in 24 hrs.

(50) Color, body, specific gravity and drying; spread on glass and should dry in 5 hrs.

(55) Color, body, specific gravity and drying; spread on glass and should dry in 24 hrs.

0007-SWP-000122066

(56) Color, body, specific gravity and drying. Spread on glass and should dry in 5 hrs.

(60) Color, body, specific gravity and drying. Baked 2 hrs. at 175 degrees. Should be hard and elastic.

(63) Color, specific gravity and weight.

(74) " " " " "

(82) Tested for Beaume and should be baked 3 hrs on metal at 350 degrees. Should be hard and elastic with good gloss.

(86) Color, body, specific gravity and drying. Spread on glass; should dry in 6 hrs.

(91) Color, body, specific gravity and drying. Should be applied over rubbed out panel over flat color or over an oak panel that has been filled. This should be applied in the afternoon and should be fairly dry next morning. Should not be recoated under 3 or 4 days.

(102) Color, body, specific gravity and drying. Also applied on filled oak panel in the afternoon and should be dried nicely next morning but not hard enough to walk on under 36 to 38 hrs. Spread on glass; this should dry to touch in 12 hrs.

(106) Color, body, specific gravity and drying. 2 parts of (106) and 6 of (2) Spread on glass; should dry in 8 to 10 hrs.

(111) Should be applied on rubbed out panel over flat color in the afternoon and should set to touch in 6 to 8 hrs. and dried fairly well in 15 to 18 hrs. and hard enough for recoating in 48 to 60 hrs.

(131) Color, body, specific gravity and drying. Spread on glass; should dry in 10 to 12 hrs.

(137) Color, body, specific gravity and drying. Spread on glass; should dry in 5 hrs.

(138) Color, body, specific gravity and drying. Baked out on metal 2½ to 3 hrs at 175 degrees; should be hard and elastic.

(139) Color, body, specific gravity and drying. Spread on glass; should dry in 10 hrs.

(144) Color, body, specific gravity and drying. Spread on glass; should dry in 6 hrs.

(145) Color, body, specific gravity and drying. Spread on glass; should dry in 5 hrs.

(148) Color, body, specific gravity and drying. Spread on glass; should dry in 1½ to 2 hrs.

(149) Color, specific gravity and weight.

(167) Color, body, specific gravity and drying. Should be applied over spoke having color Varnish on it. Same rubbed with pumice or mossed. Should dry fairly well in from 10 to 15 hrs.

(168) Color, body, specific gravity and drying. Spread on glass; should dry in 5 hrs. Applied on filled hardwood panel should dry hard to sand in 12 to 18 hrs.

0007-SWP-000122067

(171) Beaume and should be baked 3 hrs at 325 to 350 degrees.

(172) Test on this should be same as (111) except that it dries a trifle slower.

(173) Color, body, specific gravity and drying. Spread on glass should dry in 12 hrs. Applied on filled oak panel; should dry hard in 18 to 20 hrs and ready for recoat in 48 to 40 hrs.

(176) Color, body, specific gravity and drying; spread on glass should dry in 5 hrs.

(181) Color, body, specific gravity and drying. Spread on glass should dry in 15 hrs.

(182) Color, body, specific gravity and drying; spread on glass should dry in 15 hrs.

(183) Color, body, specific gravity and drying. 1 part (183) and 8 parts (2). Spread on glass should dry in 8 to 10 hrs and not curdling when mixed with (2)

(184) Color, body, specific gravity and drying. 2 parts of (184) and 8 parts of (2). Spread on glass should dry in 8 hrs and not curdle when mixed with (2).

(194) Color, body, specific gravity and drying. Spread on glass; should dry in 6 hrs.

(211) Color, body, specific gravity and drying. Spread on glass should dry in 12 to 16 hrs.

(213) Color, body, specific gravity and weight.

(226) Color, body, specific gravity and drying. Spread on glass; should dry in 15 to 18 hrs and generally has a frosted appearance and used only in blends.

(227) Color, body, specific gravity and drying. Spread on glass;should dry in 4 to 5 hrs.

(229) Color, body, specific gravity and drying. Spread on glass; should dry in 4 hrs.

(230) Beaume. Used as a base for Black Baking Japans.

(234) Color, body, specific gravity and drying. Spread on glass; should dry in 6 hrs.

(236) Color, body, specific gravity and drying. Spread on glass; should dry in 6 hrs.

(238) Beaume. Should dry on glass in from 5 to 6 hrs.

(239) Color, body, specific gravity and drying. Spread on glass in 4 hrs.

(240) Beaume. Spread on glass should dry in 4 hrs.

(241) Color, body, specific gravity and weight.

(242) " " " " " "

(245) " " " " " drying. Spread on glass; should dry in 6 hrs.

(247) Color, body, specific gravity and drying. Spread on glass; should dry in 8 to 10 hrs

0007-SWP-000122068

(250) Color, body, specific gravity and drying. Should be applied over rubbed oak panel over flat color. Should dry in from 15 to 20 hrs and ready for recoating in 48 to 60 hrs.

(251) Beaume and drying. The Beaume should be 34 degrees. This is tested as follows:

Reduce 1 oz. (251) with 2 oz. (63). Apply on new oak panel; should be dry enough to fill over in 40 to 60 minutes without losing too much of its stain effect or in other words, when varnished, should give a true Golden Oak shade. G. O. Filler is used over this stain.

(253) Beaume and should be baked on metal 3 hrs at 300 degrees to 325 degrees and be hard and elastic.

(254) Same as (253) only baked 3 hrs at 350 degrees.

(256) Color, body, drying and weight and specific gravity. Spread on glass; should dry in 24 hrs.

(257) Color, body, specific gravity and drying. Spread on glass should dry in 15 hrs. Applied over filled oak panel; should dry in 12 to 15 hrs and hard enough to recoat in 48 to 60 hrs.

(258) Same as (111)

(259) " " (111)

(260) Color, body, specific gravity and drying. Should be applied over color and varnish spoke rubbed or mossed. Should dry in 15 to 18 hrs.

(261) Color, bosy, specific gravity and drying. Spread on glass should dry in 8 to 10 hrs.

(263) Beaume and drying. Must not flash below 105 degrees F. (open tester) must be of 1st quality, made of pure Kauri Gum, Pure Linseed Oil, pure Turpentine and of the proper driers only. Should set to touch in from $\frac{1}{4}$ to 1 hr. and dry hard and elastic, in from 18 to 24 hrs at 70 degrees F. Mixed in the proportion of 1 part (263) and 8 parts of Linseed Oil. It should remain clear for 2 hrs. and set to touch in from 6 to 8 hrs. at 70 degrees F.

(265) Beaume and should be baked on metal 3 hrs at 350 degrees flowing out nicely and hard but elastic.

(266) Beaume. Must be made of pure high grade Asphaltum, best quality of Pure Linseed Oil and proper driers only and must not contain less than 20 gals. of prepared Linseed Oil to 100 gals . of Varnish. Must not flash below 105 degrees F. (open tester) must mix freely with Linseed Oil in all proportions and be free from sediment, resin and naptha. When flowed out on glass and allowed to drain in a vertical position, the film must be perfectly smooth and of full body and must be equal in this respect to the standard sample, set to touch in from $1\frac{1}{2}$ to $2\frac{1}{2}$ hrs. and dry hard on glass in less than 24 hrs. at 70 degrees F. When dry and hard it should not rub or powder up under friction from the finger, the application of heat must hasten the drying and give a harder film.

(272) Color, body, specific gravity and drying. Spread on glass should dry in 8 hrs.

(275) Beaume and covering. Spread on glass should dry in $1\frac{1}{2}$ to $1\frac{3}{4}$ hrs.

(278) Beaume and drying. Spread on glass should dry in $1\frac{1}{2}$ hrs.

0007-SWP-000122069

(279) Beaume

(281) Color, body, specific gravity and drying. Applied over color and varnish on spoke. Should dry in 8 to 10 hrs.

(282) Beaume and drying. Should be baked 2 hrs. at 350 degrees.

(284) Beaume, covering and drying. Spread on glass should dry in 30 minutes. Beaume should be 38 degrees.

(286) Color, body, specific gravity and drying. Should be applied over color and Varnish on panel drying in 10 to 15 hrs.

(287) Color, body, specific gravity and drying. Spread on glass should dry in 4 hrs.

(288) Same as (287)

(289) Color, body, specific gravity and drying. Spread on glass; should dry in 12 to 15 hrs.

(290) Beaume, covering and drying. Applied on sheet iron; should dry in 10 to 12 hrs.

(291) Color, specific gravity, body and weight.

(292) Beaume and drying. Should bake 4 hrs. at 300 degrees hard and elastic.

(293) Color, body, specific gravity and weight.

(294) Beaume and drying. Spread on glass should dry in 1½ to 2 hrs.

(295) Beaume.

(296) Beaume and drying. Baked 2 hrs. at 300 degrees should be hard and elastic.

(297) Color, specific gravity and weight.

(298) Beaume.

(301) and (302) should be applied over color and varnish panels rubbed with pumice and water; should dry fairly well in 15 to 18 hrs. and be ready for recoating in from 48 to 60 hrs.

(382) 7 parts (2) 1 of (332) dry in 8 hrs.

(374) 7 " (2) 1 " (374) " " 6 "

Hoping this will meet your approval as a fair average test of our considerable line of circle numbers, I am

Yours very truly,

(signed) M. L. Sims

Gen'l Supt. Varnish Mfg.

0007-SWP-000122070

104 CANAL STREET
CLEVELAND, O., U. S. A.

LEWIS BERGER & SONS, LTD.

FOR W. R. Sieplein,

DATE 10-9-06

SUBJECT

OCT 23 1906

Dear Sir:

I am sending you herewith a copy of the latest test for varnish, oils and Japans. I know that you have a list that was made out before you left Cleveland but this one contains the latest additions and possibly some changes different from what you have.

Yours very truly,

M. L. Lima per E.H.

Gen'l Supt. Varnish Mfg.

J.W.G.
23 OCT 1906

0007-SWP-000122071

250 Color, body, specific gravity and drying. Should be applied over rubbed out panel over flat color. Should dry in from 16 to 20 Hrs. and ready for recoating in 48 to 60 Hrs.

251 Beaume and drying. The Beaume should be 34°. This is tested as follows:

Reduce 1 Oz. 251 with 2 Oz. 14 and 2 Oz. 63 Apply on new oak panel; should be dry enough to fill over in 40 to 60 minutes without losing too much of its stain effect or in other words, when varnished, should give a true Golden Oak shade. J. O. Filler is used over this stain.

263 Beaume and should be baked on metal 3 Hrs. at 300° to 325° and be hard and elastic.

264 Same as 255 only baked 3 Hrs. at 350°.

256 Color, body, drying and weight and specific gravity. Spread on glass; should dry in 24 Hrs.

257 Color, body, specific gravity and drying. Spread on glass should dry in 15 Hrs. Applied over filled oak panel; should dry in 12 to 15 Hrs and hard enough to recoat in 48 to 60 Hrs.

268 Same as 111.

269 " " 111.

260 Color, body, specific gravity and drying. Should be applied over color and varnish spoke rubbed or mossed. Should dry in 15 to 18 Hrs.

261 Color, body, specific gravity and drying. Spread on glass should dry in 8 to 10 Hrs.

263 Beaume and drying. Must not flash below 105° F. (open tester) must be of 1st quality, made of pure Kauri Gum, pure Linseed Oil, pure Turpentine and of the proper driers only. Should set to touch in from 1/4 to 1 Hr. and dry hard and elastic, in from 18 to 24 Hrs. at 70° F. Mixed in the proportion of 1 part 263 and 8 parts of Linseed Oil. It should remain clear for 2 Hrs and set to touch in from 6 to 8 Hrs at 70°F.

265 Beaume and should be baked on metal 3 Hrs. at 350° flowing out nicely and hard but elastic.

266 Beaume. Must be made of pure high grade Asphaltum, best quality of pure LinseedOil and proper driers only and must not contain less than 20 Gals. of prepared Linseed Oil to 100 Gals. of Varnish. Must not flash below 105° F. (Open tester) must mix freely with Linseed Oil in all proportions and be free from sediment resin and naptha. When flowed out on glass and allowed to drain in a vertical position, the film must be perfectly smooth and of full body and must be equal in this respect to standard sample, set to touch in from 1 1/2 to 2 1/2 Hrs. and dry hard on glass in less than 24 Hrs. at 70° F. When Dry and hard it should not rub or powder up under friction from the finger, the application of heat must hasten the drying and giving a harder film.

272 Color, body, specific gravity and drying. Spread on glass should dry in 8 Hrs.

275 Beaume and covering. Spread on glass should dry in ~~Extras~~ 1 1/2 to 1 3/4 Hrs.

278 Beaume and drying. Spread on glass should dry in 1 1/2 Hrs.

0007-SWP-000122072

Mr. W. R. Sieplein,
c/o Lewis Berger & Sons
Homerton, London, E.
Eng.

25 OCT 1906

Test of Oil, Varnish & Japans.

10-8-

Dear Sir:

Standard tests for circle numbers in numerical order, as approved by Gen'l Supt. of the Varnish Mfg. Dept.

CL CL and practically all Linseed Oils are tested for color, body, specific gravity and weight.

C4 Tested for color, body, specific gravity and drying; spread on glass; should dry in 15 Hrs.

CL Tested by grinding 2 Oz. 46 dry (by weight) 2 1/4 Oz. CL (by weight). This is thinned by using 2 Oz. by weight of the paste and 1 Oz. by weight of C4. This is applied on properly prepared panel that has had a coat of primer and filler. Should dry in from 50 to 60 minutes, hard enough not to rub up under the Varnishing.

C8 This is spread on glass and should dry in from 4 to 6 Hrs. Tested also for color, body and specific gravity.

C2 2 Oz. of C2 6 Oz. of C2 should dry in 8 to 10 Hrs. Spread on glass. Tested for color, body and specific gravity. and not curdle in mixing

C3 Color, body and specific gravity. Also spread on glass; should dry in 24 Hrs.

C4 Tested for color, specific gravity and weight.

C12 " " " " " " drying. 2 parts of C17 and 6 parts of C2 Spread on glass; should dry in 8 to 10 Hrs. and not curdle in mixing.

C13 Tested for color, specific gravity and drying. 2 parts C13 and 2 C2. Spread on glass; should dry in 8 to 10 Hrs. and not curdle in mixing.

C21 Tested for color, body, specific gravity and drying. Spread on glass and should dry in 8 to 10 Hrs.

C25 Tested for color, body, specific gravity and drying. 2 parts of C25 and 6 of C2. Spread on glass; should dry in 8 to 10 Hrs. and not curdle in mixing.

C28 Color, body, specific gravity and drying. Spread on glass; should dry in 8 Hrs.

C29 Color, body, specific gravity and drying. Spread on glass: should dry in 8 Hrs.

C31 Color, body, specific gravity and drying. 1 part of C31 7 parts of C2. Spread on glass; should dry in 8 to 10 Hrs. and not curdle in mixing

C37 Color, body, specific gravity and drying. Spread on glass; should dry in 2 Hrs and not become brittle in 24 Hrs.

C50 Color, body, specific gravity and drying; spread on glass and should dry in 5 Hrs.

C55 Color, body, specific gravity and drying: Spread on glass and should dry in 24 Hrs.

0007-SWP-000122073

56 Color, body, specific gravity and drying. Spread on glass and should dry in 5 Hrs.

60 Color, body, specific gravity and drying. Baked 2 Hrs at 175°. Should be hard and elastic.

62 Color, specific gravity and weight.

74 " " " " "

82 Tested for Beaume and should be baked 3 Hrs. on metal at 350°. Should be hard and elastic with good gloss.

86 Color, body, specific gravity and drying. Spread on glass; should dry in 6 Hrs.

91 Color, body, specific gravity and drying. Should be applied over rubbed out panel over flat color or over an oak panel that has been filled. This should be applied in the afternoon and should be fairly dry next morning. Should not be recoated under 3 or 4 days.

102 Color, body, specific gravity and drying. Also applied on ~~gkx~~ filled oak panel in the afternoon and should be dried nicely next morning but not hard enough to walk on under 36 to 48 Hrs. Spread on glass; this should dry to touch in 12 Hrs.

106 Color, body, specific gravity and drying. 2 parts of 106 and 6 of 2 Spread on glass; should dry in 8 to 10 Hrs.

111 Should be applied on rubbed out panel over flat color in the afternoon and should set to touch in 6 to 8 Hrs and dried fairly well in 15 to 18 Hrs. and hard enough for recoating in 48 to 60 Hrs.

131 Color, body, specific gravity and drying. Spread on glass; should dry in 10 to 12 Hrs.

137 Color, body, specific grevity and drying. Spreadon glass; Should dry in 5 Hrs.

138 Color, body, specific gravity and drying. Baked out on metal 2 1/2 to 3 Hrs at 175°; should be hard and elastic.

139 Color, body, specific gravity and drying. Spread on glass; should dry in 10 Hrs.

144 Color, body, specific gravity and drying. Spread on glass; should dry in 6 Hrs.

145 Color, body, specific gravity and drying. Spread on glass; should dry in 5 Hrs.

148 Color, body, specific gravity and drying. Spread on glass; should dry in 1 1/2 to 2 Hrs.

149 Color, ~~body~~ specific gravity and weight.

157 Color, body, specific gravity and drying. Should be applied over spoke having color Varnish on it. Same rubbed with pumice or mossed. Should dry fairly well in from 10 to 15 Hrs.

168 Color, body, specific gravity and drying. Spread on glass; should dry in 5 Hrs. Applied on filled hardwood panel should dry hard to sand in 12 to 18 Hrs.

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(171) Beaume and should be baked 3 Hrs at 325° to 350°.

(172) Test on this should be same as (111) except that it dries a trifle slower.

(175) Color, body, specific gravity and drying. Spread on glass should dry in 12 Hrs. Applied on filled oak panel; should dry hard ~~enough~~ in 18 to 20 Hrs. and ready for recoat in 48 to 60 Hrs.

(176) Color, body, specific gravity and drying; spread on glass should dry in 5 Hrs.

(181) Color, body, specific gravity and drying; Spread on glass should dry in 16 Hrs.

(182) Color, body, specific gravity and drying; spread on glass should dry in 15 Hrs.

(183) Color, body, specific gravity and drying. 1 part (183) and 8 parts (2). Spread on glass should dry in 8 to 10 Hrs. and not curdling when mixed with (2).

(184) Color, body, specific gravity and drying. 2 parts of (184) and 8 parts of (2). Spread on glass should dry in 8 Hrs. and not curdle when mixed with (2).

(194) Color, body, specific gravity and drying. Spread on glass; should dry in 6 Hrs.

(211) Color, body, specific gravity and drying. Spread on glass should dry in 12 to 15 Hrs.

(213) Color, body, specific gravity and weight.

(226) Color, body, specific gravity and drying. Spread on glass; should dry in 15 to 18 Hrs. and generally has a frosted appearance and used only in blends.

(227) Color, body, specific gravity and drying. Spread on glass; should dry in 4 to 5 Hrs.

(229) Color, body, specific gravity and drying. Spread on glass; should dry in 4 Hrs.

(230) Beaume. Used as a base for Black Baking Japans.

(234) Color, body, specific gravity and drying. Spread on glass; should dry in 6 Hrs.

(236) Color, body, specific gravity and drying. Spread on glass should dry in 6 Hrs.

(238) Beaume. Should dry on glass in from 5 to 6 Hrs.

(239) Color, body, specific gravity and drying. Spread on glass in 4 Hrs.

(240) Beaume. Spread on glass should dry in 4 Hrs.

(241) Color, body, specific gravity and weight.

(242) " " " " " "

(245) " " " " " drying. Spread on glass; should dry in 6 Hrs.

(247) Color, body, specific gravity and drying. Spread on glass; should dry in 8 to 10 Hrs.

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279 Beaume.

281 Color, body, specific gravity and drying. Applied over color and Varnish on spoke. Should dry in 8 to 10 Hrs.

282 Beaume and drying. Should be baked 2 Hrs. at 350°.

284 Beaume, covering and drying. Spread on glass should dry in 30 minutes. Beaume should be 38°.

286 Color, body, specific gravity and drying. Should be applied over color & Varnish on panel drying in 10 to 15 Hrs.

287 Color, body, specific gravity and drying. Spread on glass should dry in 4 Hrs.

288 Same as 287.

289 Color, body, specific gravity and drying. Spread on glass; should dry in 12 to 15 Hrs.

290 Beaume, covering and drying. Applied on sheet iron; should dry in 10 to 12 Hrs.

291 Color, specific gravity, body and weight.

292 Beaume and drying. Should bake 4 Hrs. at 300° hard and elastic.

293 Color, body, specific gravity and weight.

294 Beaume and drying. Spread on glass should dry in 1 1/2 to 2 Hrs.

295 Beaume.

296 Beaume and drying. Baked 2 Hrs. at 300° should be hard and elastic.

297 Color, specific gravity and weight.

298 Beaume.

301 and 302 should be applied over color and varnish panel rubbed with pumice and water; should dry fairly well in 15 to 18 Hrs. and be ready for recoating in from 48 to 60 Hrs.

Hoping this will meet your approval as a fair average test of our considerable line of circle numbers, I am

Yours very truly,

M. A. D...y

Gen'l Supt. Varnish Mfg.

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