Thoughts

PUBLISHED WEEKLY BY THE ACME WHITE LEAD AND COLOR WORKS, DETROIT, MICH.

Devoted to Matters of Interest to Our Representatives.

VOL. I. DETROIT, MICHIGAN, SEPTEMBER 30, 1899. NO. 3.

Specification Sheets.

In sending us orders for goods being used by the manufacturing trade you will help us greatly by using our specification sheet, answering the printed question thereon in as brief a way as possible, and making any remarks on the back which may occur to you that will assist factory in executing order. *Avoid long-winded, conversational letters, as we are busy*, and they consume too much time in reading to find out what you require. Often orders are delayed by the entire absence of the necessary information. Your careful attention to this matter will aid us in executing orders in an intelligent manner. Remember that specification sheet is for factory and not the office, and that they represent too widely different departments. If you have none of these sheets, write for them and we will send you a supply. Most of our men are using them and very seldom have reason to complain of goods not giving satisfaction.

Philadelphia, Sept. 24th, '99.

To Editor THOUGHTS:

It seems to me that the publication of THOUGHTS should do a world of good, and I submit the following suggestions for your consideration: The manufacturing trades are always anxious to know what the "other fellow" is doing in their particular line of work, and the salesman who can sit down and converse with them intelligently and offer suggestions from time to time in regard to how others are finishing will always get the ear and confidence of the up-to-date buyer. Now by the reason of my territory being restricted, I, of course, cannot familiarize myself with what certain trades are doing in Toledo, St. Louis, or Minneapolis, nor have I at the present time any means of learning the names of, say, the bedstead trades in these points, or the manufacturers of toys, or, in fact, any of the others. Now why could we not use THOUGHTS as a medium whereby I can inform the rest of the family what is being done in my territory by the different manufacturers, and in turn get information from them that would undoubtedly be a great help to me in handling my trade. To illustrate my point: I called on the Swain Bath-Tub Works, of Philadelphia, yesterday. In the course of the conversation the buyer asked me what other bath-tub manufacturers we were selling. I mentioned the Detroit Steel-Clad Bath-Tub Works, Buick & Sherwood, The Standard, and several others. He said: "Every paint man that comes in here claims to sell all the bath-tub manufacturers in the United States, but you are the first salesman who has named any of them." It undoubtedly pays to keep posted.

No. 18.

[We think No. 18's suggestion is an excellent one, and trust our other representatives will give it the consideration it deserves. There is no doubt that a well-posted salesman, fully equipped with information in his line of business, who can *make good suggestions*, will gain confidence and business, where a man who "has nothing particular to say," will invariably "fall down." Of course it pays to keep posted. ED.]

Notes.

Keep your eye on spring business.

I like the idea of publishing THOUGHTS, and shall be glad to contribute to it if I can.

No. 12.

[You certainly can. ED.]

Don't forget that expense books should reach us not later than Wednesday of each week.

Jottings, under a new name, arrived all o.k., and to read same is like meeting an *old friend*.

No. 5.

[We will explain for the information of representatives who have joined us in more recent years, that *Jottings* was the name of a weekly paper on the order of THOUGHTS that was published eight or ten years ago. ED.]

Send in your paper on "How to Sell New Era High-Grade Prepared Paint" as promptly as possible. We want to have ample time in which to judge of the comparative merit of all papers.

We should like to receive reports from our representatives regarding the methods employed by manufacturers for enameling wooden handles of dusters, whisk brooms, curry combs, etc., etc. What kind of wood is generally used; how is finish applied, etc?

We hope our salesmen will ask questions through the columns of THOUGHTS regarding anything in connection with our goods, about which they may be in doubt. We want every man to be fully posted, and will "lay the blame" upon any representative who is not.

I am in receipt of our little publication, THOUGHTS, and fully appreciate the benefit I may derive from it, and shall carefully peruse each article and thereby hope to gain some valuable information, coming as it does from older and successful traveling men, and men with good ideas of business.

Respectfully, No. 75.

Have read your new publication, THOUGHTS, carefully, and consider that same will be of great benefit to the salesmen, particularly to those like myself who have not had the experience in the paint line, and will take advantage of any pointers I may be able to secure from same. Yours respectfully,

No. 20.

Remember that the salesman is responsible for the correctness of the list of towns comprising his territory. He can add to or take from such list at any time, but it must be comprised only of towns in which he is actually looking after the trade. No credit will be given for orders sent in from towns that do not appear upon his list unless we are advised in connection with the order to add same.

Criticisms.

No. 85: Why don't you attach printed matter to your orders, as instructed?

No. 8: Don't forget to note "c" or "m" in connection with items in your expense book to denote whether "cash" or "mileage" has been expended for railroad fare.

No. 80: Use both sides of your order sheets.

No. 75: Always mark "ads." on order sheets when an advertising slip is attached to same.

Thoughts

PUBLISHED WEEKLY BY THE ACME WHITE LEAD AND COLOR WORKS, DETROIT, MICH.

Devoted to Matters of Interest to Our Representatives.

VOL. I. DETROIT, MICHIGAN, OCTOBER 7, 1899. NO. 4.

Regarding the Quality of Our Products.

This subject is to be looked at from two standpoints, namely:

First: Catalogue goods, that is, our regular line of goods as listed in our catalogue.

Second: Special goods, as made and supplied to the manufacturing or consuming trade.

Our motto is: "*Aim at the Highest Point of Excellence.*"

Dealing with the first proposition, criticisms, by our salesmen, are generally of an indefinite character; with the second they are generally specific, that is to say, a complaint or criticism applies to a definite shipment, and we are enabled, therefore, to study it from a definite standpoint.

We believe it to be to our interest to invite criticisms from our salesmen on catalogue goods to a greater extent than has been done in the past in order that we may still improve our output and excel over all our competitors. *We believe we do now.* We seldom have complaints, and that is the best possible evidence. Still, you may be able to make us some very good suggestions. "DON'T HESITATE TO SPEAK RIGHT OUT IN MEETING." Give us the benefit of your opinion. We will be more than pleased to have it. If we can improve, we will. The better we make our goods the easier they are to sell. That means pleasant and profitable business for us all.

We maintain a department with skilled employees who do nothing but investigate all criticisms, as well as test our finished product. We have so few complaints that they are frequently looking for something to do, so do not hesitate to criticise. We have a system for handling the subject, and it does not cause an extra burden to anyone.

THOMAS NEAL, Secretary.

Editor THOUGHTS:

I am compelled to register a complaint against New Era High-Grade Paint—the first for me. A full-grown man escorted me out to examine and explain to him (provided I could muster sufficient wisdom), why our No. 44, put on last year, was becoming (as he claimed), discolored. I found that the nail heads had been left without putty and the rains had caused iron rust to run from some of them, making streaks down the siding. You can readily see that the fault *was entirely with the Paint.* Yours, No. 12.

Allegheny, Pa., Sept. 30th, '99.

Editor THOUGHTS:

Replying to your favor asking for contribution to THOUGHTS. As my trade and the manner of securing same is so entirely different from the general trade, I do not know that anything I can say would be of any practical use to the general men. The policy that I pursue, however, is that I study my customer, find out his likes and dislikes, and his hobbies, and as far as I can, cater to same.

The old saying is that "there is no friendship in business," but my experience is that friendship has a great deal to do in securing business, and to be able to make friends, and hold them, living up carefully to promises made, and getting the confidence of the customer, and never in any possible way refer to competitors' goods in a derogatory manner. This is a point that should be carefully followed out. I also believe that it is an excellent plan to keep up a correspondence with the buyers as much as possible, and, instead of sending an advance postal card, to write a friendly personal letter, stating that you would call in a few days, and ask them if they would kindly hold matters open until you could have a personal interview with them.

I enclose an article from the *Pittsburgh Dispatch* which is headed "Weather and Nerves." It is too lengthy to publish, but it says the changes in the weather affect men's nerves, and there are times when a pleasant man will be very disagreeable, and by studying character carefully, knowing how to time your visits, has a great deal to do in securing business, in my judgment.

Yours truly, No. 25,

Editor THOUGHTS:

I called on Mr. C. W. Kelly, of Devil's Lake, N. D., and found him in somewhat of a bad frame of mind regarding the Acme White Lead and Color Works. He began to abuse the goods and said he had a lot of Davies' Varnish Stains in stock and that he had been offering them at 5c and 10c per can in order to get rid of them. He told me that he took some of our varnish stain to his own house and had to throw it out as it was colorless. I said to Mr. Kelly: "We will investigate this matter." I called for a can each of oak, deep cherry and mahogany, secured three boards, a brush, and went at it. In a very short time I convinced Mr Kelly that he had never seen finer work done in his life than I did with a single coat of Davies' Varnish Stains. He looked the boards over and over, the clerks did the same, and they had to acknowledge that the goods were all right. After I got through with my talk on the superior quality of our products Mr. Kelly turned to his buyer and told him if anything was wanted to order it. I sold him more of Davies' Varnish Stains and he advanced his prices from 5c and 10c per can to regular. We have a good show of getting their trade in sundries in the future instead of Blood & Co. Mr. Kelly did not charge me anything for the three cans I cut open. I tell you by the time I got through with him he completely changed his mind and now believes we make as good goods as anyone. I had a desperate struggle on my hands, but came out on top. Yours truly, No. 22.

Notes.

When orders are declined the Credit Department has tried to "land" the business by sending a memorandum bill and deducting a "special" cash discount as a "bait" to get the cash in advance. Have thought several times this might get us into trouble with customers who regularly discount on our usual terms, if they heard about it. What do our representatives think? No complaint on that score has ever been received.

Criticisms

No. 14: When entering orders for goods priced by the dozen, always do so by the dozen and fraction of a dozen, *not number of cans* as you have been doing.

No. 85: When entering orders for Neal's Carriage Paints do not say 3 gals. in 1-2 pints but enter 48—1-2 pints. Refer to your sample order sheet.

When entering orders for Neal's Enamels salesmen should specify either Lustrous or Dead, the majority simply entering *Black*; also when entering *O. B* we cannot tell whether Oak Brown or Oriental Blue is wanted. The same applies to *S. G.*, in not knowing whether Sea Green or Silver Gray is meant. *A. G.* is another example, as either Apple Green or Almerian Green might be intended

Thoughts

PUBLISHED WEEKLY BY THE ACME WHITE LEAD AND COLOR WORKS, DETROIT, MICH.

Devoted to Matters of Interest to Our Representatives.

VOL. I. DETROIT, MICHIGAN, OCTOBER 14, 1899. NO. 5.

Owensboro, Ky., Sept. 29th, '99.

Editor THOUGHTS:

I have before me the first and second issues of THOUGHTS. In the first you desire an expression on five topics:

First: "Increasing the Sale of N, C. P." So far as the representative is concerned, extra and unceasing "push" is required. This must be tempered with a careful eye to the interests of the jobbers who canvass his territory. I have found it to be one of the hardest problems to solve that I have had in my business experience, but, with the exception of one or two parties, I think I have got the exact plan of my work fairly understood and appreciated by them, and they understand that under no circumstances where they are selling it will we interfere, but where we find that competing manufacturers have placed their goods, we consider that the jobber has been either direlict, or that prices have been made the dealer which they cannot meet, and we consider it our privilege and right to sell all such parties if their trade is desirable. My belief is that a more thorough system of advertising N. C. P. would aid greatly in increasing sales, but whether the increase would be commensurate with the cost, I am unable to state. One of our competitors sent out men who visited many of the small points, calling on the livery stable people and every one liable to use carriage paints, sticking up cards, etc., and referring parties to some resident dealer for the goods when needed. I don't think this resulted in a "howling success," but I do think that to bring the goods directly to the notice of the consumer by pamphlet, similar to our "booklet," would be of great advantage. To send them to the dealer for distribution is in many cases about as beneficial as putting them in the home waste-basket. This idea of direct contact with consumer is thoroughly exemplified and supported by the unquestioned good shown up in the largely increased sale of our Enamels, and had we received all that was due us for the work, the output would have been quadrupled, but every little or big concern in the country is putting out an enamel, and the dealer, when called on for ours, if he has none, recommends the brand he is carrying, in many instances guaranteeing it good for any and all work, claiming that "enamel is enamel," and to be all right should do any and all things required of an enamel. I have heard of a numb r of instances, more especially in bath-tub work, where a common enamel has been tried and failed and parties going back to the dealer for reimbursement, subsequently getting our enamel and reporting thorough and complete satisfaction. I have investigated only four complaints, (the only ones I have heard of during my connection with the Acme White Lead and Color Works), and in each I am positive the failure was on the part of the "dauber" who put it on. I would suggest that if it can be done without too much trouble, that a strip be pasted on each can, with the following wording: "We do not guarantee the work unless directions are strictly followed."

Second: "Regarding Prices of Mixed Paints." I have heard of prices ranging all the way from 40c to $1.15 in gallon tins. The ruling price, and the one that seems to take best, is from 90c to $1.00 per gallon, to the dealer. This last price seems to be the one given, or claimed to be given, on the most popular brands. To talk anything higher to a dealer rarely catches him, as he says he can sell a paint costing him one dollar for just as much as a higher-priced one, but when we strike a contractor and dealer, they can be induced to pay more, as they know they get more than value received. I am now citing the feeling in my territory. Southern people don't care to calculate and work to save a small amount like their northern friends, and consequently it is harder to work them. One of the best ways to secure the co-operation of the jobber in pushing our specialties, is never to interfere in any way with the trade he is selling, so far as the specialty he carries and sells is concerned, but to talk up some other specialty to the dealer and get him either to order it direct, or from the jobber, the latter preferred. Then the jobber will realize that while you are calling on his trade, you are doing him no harm, but helping him to increase his sales. I have, in several instances, when a dealer wanted too small a quantity to order direct, suggested that he order from his jobber, knowing at the time that the jobber did not have it, and in several instances I have received slip notices of the jobber having ordered it. When a jobber finds a man working for him he is very apt to appreciate it, not only by pushing the specialties he carries, but by adding more of them. Another good plan is to make friends with the representatives constantly met with on the road, take them into your friends, introduce and endorse them and their houses, and it will not be long before you see the good results.

Third: "Advertising Matter Furnished the Dealer." We must first know and thoroughly weigh the dealer and his methods, and then send in orders for such matter and quantities as you feel will be carefully and judiciously disposed of. To work this very important matter so as to receive from the outlay the best possible results, requires close observation and watchfulness on the part of the traveller. There are some dealers in my territory that half a dozen color cards would do as well for as a thousand, whereas there are others who will use every one sent them to good advantage by enclosing them in every letter they send out, handing them to every customer who they think may at some future time need the goods described, thereby bringing the matter to the eye of the consumer and fixing his or her attention, as has been done by our Enamel ads. in the various periodicals, the results from which I have cited in this line of suggestions.

Respectfully, No. 9.

*No. 9 should not refer to the distribution of sample cards in the same manner as ordinary advertising matter. They are meant to *sell goods by*, or to hand out when inquiry is made for samples of colors. They are much too expensive to be distributed as advertising matter. ED.]

Notes.

Salesmen will please remember notice sent last month regarding salaries. Starting with this month r presentatives are cautioned not to use expense money in personal expenditure.

Criticisms.

No. 10 sends in orders with ads. marked on order sheet, but no adv. order or memo. for adv. matter attached.

No. 85 enters orders for Neal's Enamels in small cans by the gallon: ¾ gal. in ½-pts.—6 S. W., 6 Ver.; should be: 12 ½-pts., —6 S. W., 6 Ver.

Thoughts

PUBLISHED WEEKLY BY THE ACME WHITE LEAD AND COLOR WORKS, DETROIT, MICH.

Devoted to Matters of Interest to Our Representatives.

VOL. I. DETROIT, MICHIGAN, OCTOBER 21, 1899. NO. 6.

To Our Family.

Marengo, Ia., October 6th, '99.

Editor THOUGHTS:

I find that Jno. W. Masury & Son's representative offered my customer here a plan by which he could get rid of the paints he has in stock if he would order their mixed paints. It is the old trick of selling the stock on the road to others handling the same line. He explained to my customer that it would be necessary to do this "on the quiet" as there was an agreement in force between the paint manufacturers not to exchange paints. I do not care to expose my customer's name just now, but I wish to have this matter in THOUGHTS so that "our family" will have one eye open all the time with which to watch not only J. W. Masury & Son, but others, for I do not have much confidence in this agreement. Resp. yours.

No. 13.

[We cannot agree with No. 13 as regards the question of confidence in the matter of the maintenance of the agreement not to exchange paints, (either directly or indirectly). It does not follow, by any means, that Messrs. J. W. Masury & Sons endorse, or have any knowledge whatever of this particular man's offer in this case. There is no doubt in the world, that so far as the principals, or firms are concerned, that they all desire and propose to maintain in every particular the agreement signed in good faith. If a representative should be foolish enough to take it upon himself and on his own responsibility in this manner, indirectly violate the agreement, we do not think Masury & Sons would attempt to shield him from the consequences upon the matter being brought to their attention. It is unfortunate that men will sometimes attempt in this manner to bring the concerns they represent into disrepute through sharp practices of this kind, that their houses do not know anything about (until it is brought to their attention), and unquestionably do *not* endorse or authorize. ED.]

Peculiarities of the Trade.

New York, Oct. 1st, '99.

Editor THOUGHTS:

One of the hardest things a travelling salesman has to contend with is the fact that as a general thing his customers and the trade in general whom he calls upon, seem to think that he has nothing whatever to do, that his time is not worth a cent (and I know of no other class of men whose time is worth more), and that one has nothing to do but stand and await their pleasure. Now this class of customer needs to be handled in a very diplomatic manner. He is very touchy as a rule, and if one should attempt to go aft r him "rough shod" he would "fly off the handle," and that would see Mr. Salesman's finish, at least for that particular time A little judicious "jolly" goes a long way with this class.

We all know the man who is always glad to see you, but never gives you any of his business. You have always arrived a day or so too late and the other fellow was in, etc., etc., but we will certainly give you an order on your next trip around. I sometimes find that to start after this kind of a fellow with "Look here, old man! On my last visit you promised me faithfully to give me some business this trip. Now I am here to-day to get that business; have run down from Blank just on purpose and expect to get it." It has come to a "show down" then, and you either sell him right then and there, or you don't. You generally do, however, if you make it strong enough.

The peculiarities of human nature are legion, and the up-to-date salesman has to be always ready to meet all comers.

Yours sincerely, No. 18.

Peoria, Ills., Oct. 8th, '99.

Editor THOUGHTS:

In acknowledging the receipt of THOUGHTS, will say that it's always with interest that I look forward to the next number There can be no question but what this little pamphlet will prove of great assistance to all representatives, if the proper interest be taken in it.

No. 21.

Franklin, La., Oct. 8th, '99.

Editor THOUGHTS:

I have had the pleasure of receiving the first three issues of your paper, which I think will be a great benefit to all, if given the proper consideration. I hope to be able to help the good work along in the near future. Wishing it every success. I am,

Yours truly, No. 10.

Detroit, Mich., Oct. 4th, '99.

Editor THOUGHTS:

I beg to acknowledge receipt of your first edition of THOUGHTS. The aim of this paper is most assuredly a commendable one, and should have the support of every one of "the family." I, for one, appreciate the privilege offered of free access to an organ devoted to the answering of important questions, and the giving of valuable suggestions and advice to us salesmen. Long life to THOUGHTS!

Resp., No. 7.

Wichita, Kans., Oct. '99.

Editor THOUGHTS:

I would like all our representatives to give an answer to the following question:

"How much oil and how much white lead, either Carter's or National, will it require to make a gallon of paint equal in consistency to our New Era High-Grade Prepared Paint?" Yours respectfully,

No. 6.

Editor THOUGHTS:

I am in receipt of several issues of this paper, and also your request for a contribution. THOUGHTS is a grand enterprise, bringing into closer relationship all concerned in the welfare of the Acme White Lead and Color Works, Co-operation is the foundation of industrial success, inspiring in it's motive, efficient in it's result Should I find the time I would be only too glad to add my share towards making the page interesting.

No 50.

Editor THOUGHTS:

Three of the best painted houses that I have had the pleasure of seeing for many moons (in fact I never saw any better), are in Fenton, Mich. They are the homes of three members of the A. J. Phillips Co. New Era High-Grade Paint was chosen for the work after a test against Peninsular, Heath & Milligan, Sherwin-Williams Co. and B. P. S. I am proud of the work and wish all of you could see the houses, Mr. A. J. Phillips says any recommend we wish we can have from him for the asking.

Yours, No. 12.

Criticisms.

Some of our representatives have gotten into the habit of collecting accounts occasionally, evidently forgetting the fact that they have *no authority* to do so. Those who have overstepped our rule in this respect will please take note of the above. Once in a while we place an account in a salesman's hands for collection, in which event the authority is given. Collections made on such orders are to be promptly remitted to the house by New York Draft, Postal Money Order or Express Order. Under no circumstances are collections so made to be retained by the salesman and used for expense money.

Thoughts

PUBLISHED WEEKLY BY THE ACME WHITE LEAD AND COLOR WORKS, DETROIT, MICH.

Devoted to Matters of Interest to Our Representatives.

VOL. I. DETROIT, MICHIGAN, OCTOBER 28, 1899. NO. 7.

A Chance for Good Advice.

Mound Valley, Kans., Oct. 4. '99.

Editor THOUGHTS:

I have never had any trouble disposing of a good article of paint (and I know ours to be such) before, but in this section of Kansas (S. E.) I find it the hardest proposition I was ever "up against." What the people handle and call paint in this section runs in price from 40c to 75c per gallon, and everything seems to be "not how good, but how cheap." In Missouri, Arkansas, Okla., and Indian Territory I have the very best of prospects for a spring trade, as people there recognize a good thing when they see it. I wish you would give me your opinion on this matter as I am wanting advice. I have used every argument and convinced every dealer I have talked to, but they all say: "There is no use handling it when the people won't buy it." So there you are. Of course if the crops were good in this section I might do better, but they are in very bad shape. In the last four towns I have been in every house needs about four coats of paint. I have gone to a good many persons myself and all have said: "If the crops had been good I intend d painting but I need every cent I have and it will have to go until next year."

No. 28.

Paducah, Ky., Oct., '99.

Editor THOUGHTS:

Perhaps a few ideas in reference to picking out good customers (I mean good-paying ones), would not be amiss in the columns of THOUGHTS. In my opinion being a good salesman depends as much in selling to good-paying people as on how much is sold. He should take in the general appearance of the store and stock, if well kept, everything neat and attractive. This, I think, all gives evidence of prosperity, and is certainly a good criterion. If you are told that a man has gone to the ball game, or to St. Louis to the races, or you have to hunt around the bowling alleys and saloons to find him, I should feel like looking him up mighty carefully and attach this information to any order I might secure so that our credit man would be "next" to this kind of a concern. I've got over being backward in asking a man for references, or asking him for how much he is insured, also what kind of shape he is in. If he is all o. k. he won't object to telling you, if you approach him in a proper and gentlemanly manner. A man whose credit is not good at home could hardly expect credit for a $100 bill of Acme paint, and if the credit department knew that he was compelled to pay cash for his fall suit I hardly think he would get the paint, dated March 1st, 1900. Consequently I think the salesmen should constantly make enquiries and report anything reflecting on the credit of their customers to the house. This puts them on the alert and often prevents getting expensive special reports, besides a lot of extra work, and then a report from a conscientious salesman is much more valuable, in my opinion, than the majority of the mercantile agencies. The credit department will recall a tilt I once had with R. G. Dun & Co. The Acme White Lead and Color Works paid $3 for a very worthless report. I once met a man selling confections in Texas. When asked how he arrived at the credit standing of all the small candy shops in the country he answered: "Oh, I sell everybody I can, good or bad, and let the house run the credit business; then, if they lose it, why it is not my funeral." I think there is just where his funeral commenced, and I believe too many salesmen leave the credit business entirely with the house and sell "everybody in sight" when they might find out a good deal while on the ground and report promptly. I would like to hear from the rest of the boys along this line, and try and educate one another on how to curtail the losses to our employers.

Yours truly, No 14.

Columbus, Ind., Oct. 3, '99.

Editor THOUGHTS:

Being quite a junior in my class, my thoughts are not sufficiently developed to grant them any privileges at present, but I assure you, I, for one, will appreciate THOUGHTS, as I am very much interested in any medium that will bring the general ideas of the different departments together, which must eventually bring forth good fruit. Therefore, I trust the seniors in the business, may, for the present, contribute some valuable information, bearing on the best methods of meeting the trade generally, and such other information as may be valuable to the juniors and for the benefit of the Company. No. 17.

Editor THOUGHTS:

I have lately demonstrated to my own satisfaction that our Acme Lye will sell easily in competition with the other brands on the market, and beg to outline how I have handled the matter, and hope the other members of "the family" will kindly give me their views on the subject, which I know will be of great assistance to me in landing the jobbing trade. There are about twelve or fourteen grocery jobbers in Detroit, and only two of them have in the past been carrying our Lime and Lye in stock. I called on the others and could do nothing with them. They stated that they had found no demand for our brand. I, therefore, have been devoting my spare time to the retail grocers and have secured enough orders (which I turned into the different jobbers) to convince them that Acme Lye is a good seller. Three more have stocked our goods and two more promise to do so as soon as some of the brands they have run lower. It is often an easy matter to sell from five to ten cases to one retail dealer, if he is caught at the right time, with the proposition of one case free with a ten case order. No. 7.

Criticisms.

No. 17 puts goods on 30 days' time on same order sheet with goods on 60 days.

A few of the salesmen are still sending in orders calling for Adamant *Exterior* Paint. Orders should be entered: Adamant Prepared Paint.

No. 20: We cannot consider any arrangement of a "consigned account" nature, so do not waste your time or ours by writing us regarding same. Always aim to make a straight sale, even if, when necessary with good people, you are obliged to stretch a few points on terms.

Suggestions.

Columbus, Ga., Sept. 11, '99.

Editor THOUGHTS:

I have at several points found a "Gold Enamel," and parties speak highly of it. Would it not be well to put up, say, a "Gold Bronze Enamel" and an "Aluminum Enamel." I think it would unquestionably pay. I would also suggest that the quantity of advertising matter sent to customers be increased. No. 9.

Thoughts

PUBLISHED WEEKLY BY THE ACME WHITE LEAD AND COLOR WORKS, DETROIT, MICH.

Devoted to Matters of Interest to Our Representatives.

VOL. I. DETROIT, MICHIGAN, NOVEMBER 4, 1899. NO. 8.

PRIZE PAPER.

"How to Sell New Era High-Grade Prepared Paint."

BY MR. A. E. BARRON. "NO. 1."

In order to sell mixed paint successfully, a salesman should take plenty of time to make the first sale at least, that is, when he has a line of paint like the New Era High-Grade.

I believe in carrying a gallon can of O. W. and a few half-pints of same, and make it a point to never be without them. By doing this you are in position to prove any claim you make, and can show up the package to the best possible advantage, as well as compare the size of same with that of the "other fellow." You are also in position to compare the weight of same, and note the difference by simply placing each package on the scales. You may say: "Is it not possible to gain the same results without being bothered with carrying the can of paint?" My answer is: "No!" It is not possible, for the simple reason that there is not one out of fifty that will grasp your meaning as quickly as they do if you have the can to demonstrate with, as you are in a position to prove what you claim then and there. *If you did not have the can your* prospective customer perhaps would not fully realize the difference in the weight, and even if he did, it would not have the same effect on him, in fact the difference is far more striking when you have the can and can make a practical illustration. You will find occasionally other paints that will weigh as much, and sometimes even more than New Era High-Grade, but as you have the analysis of all the different brands in your territory, you are in a position to know at once of what they are composed, and to quote the weight, etc. With this information it will take but a few minutes to explain to your customer the reason why the other paint weighs as much as yours. Now is the time to open up one of your half-pint cans. Open it and also open a can of the other paint. Have your customer examine them together. Secure boards and demonstrate to him the vast difference in your favor by applying each paint on an unpainted board, and also on one that has been painted. You will come out ahead every time. *Do not be afraid to show up your goods.*

When you strike a town pick out the best dealer in the place, show him what you have and give him a good paint talk. Talk the quality of your goods, the amount of advertising matter your house sends and how nicely it is gotten up, how you solicit trade and sell the paint for him, and what a large paint business you will work up, etc. Remember while you are talking this way to always be dignified, gentlemanly, and courteous, and never take any discourteous treatment from anyone. You will demand respect and more than your share of attention if you dress nicely and make a good appearance. Keep your shoes polished nicely and a nice clean collar on all the time. Do not dress loud, but modestly and with good taste. Do not approach a customer with tobacco in your mouth, or even smoking a cigar, unless you are well acquainted with your man. It is impossible to tell when you will be turned down without a hearing, and you may go away wondering why it is, and saying to yourself that "he is no gentleman, anyway," when it is all your own fault, for had you called without the tobacco, cigar, pipe or cigarette in your mouth, your reception might have been altogether different, and perhaps by doing so you have lost a good customer.

Now, after you have selected the customer you want, and have "sung your little song," just say to him that you will call on him again in a short time, that you wish to give him plenty of time to think the matter over. Find out from him the names of the best painters in town and the ones that deal with him, then hunt them up, tell them what you have in your paint. You will find at first they may not believe you, and then, to convince them, open a half-pint can, have the painter examine it, have him apply it on bare wood and a surface that has been painted. After he has done this, ask him honestly if he ever saw a better paint, or if he could mix a better article from lead and oil, or zinc, lead and oil. When you call on a painter always *remember that he can do you more good and do more for your paint than anyone else.* He can assist you and *will* assist you if he is *handled in the proper manner.* Bring yourself right down to his position, treat him well, always have a cigar with you to give him, not one for him only, but one for all his men that may happen to be around at the time, in fact make yourself a "good fellow" in his eyes and also in the eyes of his men. Have him give you a list of all the houses he knows of in the town that are going to be painted. Get him to go along with you, if possible; pay him for his trouble; do not have him do anything for you for nothing. Then call on all the names you have and sell the paint yourself. You will find it an easy matter to interest people in paint when they intend to paint their homes.

After this return to Mr. Customer. Tell him you have sold so many gallons of New Era High-Grade and you wish to have it come through him. I never saw the man that would not accept this business. This will start your paint and perhaps land your customer right there. If you should not land him then, just wait until there are a few more houses to paint. You will know this *if you keep in close touch with the painters.* When conditions are right run back to that town again and sell some more paint for your customer. Keep this up and you will secure a dealer all right. If you do not get the man you started after first, you will get someone else that will be glad to have your paint when he sees what work you are doing.

After you get your customer do not stop there, for you know there is "no rest for the wicked" (no, not wicked) paint salesman. Just keep on working your trade in the same way every time you make the town; hunt up all the houses that are to be painted, call on them yourself and sell your paint, and you will find it will not be long before you are selling the most paint that is sold in the town, and you will find in place of the town being a "lead and oil town" it will be a "mixed paint town."

It is not the number of mixed paint customers you have, but the number of gallons they sell. Is it not better to have one customer that will sell one thousand gallons a year than to have ten customers that will sell about fifty gallons a year each?

Make it a point to call on all architects. Make them your friends and they will assist you by specifying your paint.

Do not be afraid to try to knock out *any* brand of paint. It does not make any difference how long it has been handled in the town. Do not be afraid because it is one of the best known on the market and bears the best of reputation, and has invariably given satisfaction. Go after it just as energetically as if it was the poorest paint made.

I honestly believe there is not a town in the United States you cannot put in New Era High-Grade Prepared Paint if the town is worked *properly.* *It depends on the salesman at first* and then upon the Acme White Lead & Color Works to back him up with good goods.

Sincerely yours,

No. 1.

The Prize Paper on "How to Sell New Era High Grade Prepared Paint."

In response to notice in the first edition of THOUGHTS, under date of Sept. 16, we have received papers on the subject "How to Sell New Era High-Grade Prepared Paint" from the following members of our corps of representatives: No. 1 (prize paper published in this issue), No. 6, No 7, No. 9, No. 12, No. 13, No. 14, No. 15, No. 18 and No. 22.

We are somewhat disappointed at the failure of other of our representatives to respond, as we are fully aware that many of them could have made interesting and instructive contributions.

Every one of the papers received indicate that the writers have given the subject more than ordinary care, and embrace practical points on selling this line of goods that are the result of actual experience of successful salesmen, and it has, therefore, been exceedingly difficult to determine who was entitled to the prize offered by us. Mr. Barron has outlined his points in detail in such a clear and comprehensive manner that we believe a novice could not only readily understand them, but also realize why, how, and under what circumstances they should be utilized, and we therefore think that for these reasons his paper is entitled to the preference, a conclusion which we trust will meet with the approval of our other representatives who responded to a request for papers on this subject. We congratulate Mr. Barron.

We shall publish one of these papers in each issue of THOUGHTS, as we believe all our salesmen will be interested in reading the views of each representative who wrote upon this subject.

How Does This Strike You?

I was studying on the problem of how to interest the painter in the use of our New Era High-Grade Prepared Paint and thereby increase the sale of these goods. The painter's influence with the owner of a building goes a great way; his good-will in many instances can assist a representative to establish his line with a dealer.

I make the following suggestion: Offer a prize of a nice line of brushes, such as painters use, of the best material and of such value as our Company deem reasonable, and display them in a neat manner on a show card. With every $100 stock (or over), of New Era Prepared Paint give one of these cards free to the dealer, to be given to the painter, who, at the end of the season, either had purchased himself, or had influenced the sale of the largest quantity of our paint. In order to know who bought the most the painters will each receive a card (the card may have our ad. of anything of interest to a painter on) with every gallon of our paint, and at the end of the season the one holding the most cards will receive the prize, the dealer to be the judge as he naturally would feel interested on account of the increase in his sales.

The representative should make it a point to visit the painters, tell them our plan, and show them the prize to be given. Have them test our goods, informing them that in using New Era Prepared Paint they had the best paint that can be made.

I think that this would be a good way to advertise among the painters. It would help the dealer and increase sales of our New Era High-Grade Prepared Paint. This I offer as a suggestion, and would like to hear some views on it from other members of our business family. No. 6.

Enamels for Refrigerators.

Davenport, Ia., Oct. 30, '99.

Editor THOUGHTS:

I am in the best kind of a position to talk to the manufacturers of refrigerators on this subject as I have taken an old refrigerator that was otherwise unfit for use, enameled it throughout with our enamels and it is now *perfect*. It is a wood-lined refrigerator, and, besides being sweet and clean, now it is snow white, a most appropriate appearance for the interior of a refrigerator.

Very respectfully. No. 13.

Detroit, Mich., Oct. 26, '99.

Editor THOUGHTS:

In last number of THOUGHTS (Oct. 28) No. 6 asks how much white lead, Carter or National, and how much linseed oil it will take to make a gallon of paint the consistency of our New Era High-Grade. I should judge 11 pounds of lead and seven pounds of oil would make the paint about the consistency of ours, but consistency and covering capacity are two different things. It will take about thirteen pounds of lead to five pounds of oil to cover equal to New Era. It can readily be seen that the New Era is by far the best paint, as the pigment that consumes the most linseed oil and still retains its covering capacity makes the better paint. Yours,

No. 12.

Boston, Mass., Oct. 23, '99.

Editor THOUGHTS:

Your last edition received, and, like numbers 7, 10 and 21, I think it a "good thing" worth pushing along. Though the conditions of trade may be different in different localities, a great many valuable poitners, or ideas, may be obtained by an expression from each one. Though a "lamb," I, myself, have discovered that the "new" customer does not always comprehend just who you are when you present your Acme card, but if you accompany with it the remark: "the manufacturers of the much advertised Neal's Enamels" they tumble in a minute, and 99 per cent. become interested at once. This also attests the value of our expensive advertising, and it is gratifying to learn to what extent it is noticed and is getting in its work. Have not found a dealer yet who has not seen our ad. Very truly,

No. 27.

Eugene, Ore., Oct. 23, '99.

Editor THOUGHTS:

I have been receiving THOUGHTS regularly and am very much pleased and interested in conteats of same, and eagerly await the arrival of each issue, as I believe an interchange of ideas cannot but result in the general good of all.

One idea I believe it would be well for all your "electric lights" to impress upon their minds is absolute confidence in the superior quality of our products. Without this confidence I claim that it is almost impossible to dispose of goods; that a salesman, unless he positively believes in the merits of the article he is handling, cannot make the proper impression upon his customers, and cannot bring him into a buying mood. Let us make ourselves thoroughly familiar with the lines we are trying to push; compare and test same with those of our competitors, learn wherein they excel, and the rest is simple. We avoid mistakes and know just where to strike. Having, in ourselves, absolute confidence in the merits of our goods, we can talk in the proper vein, and talk understandingly, and instil our own ideas and our own confidence into the minds of others. They will quickly discern that we believe what we say, and by a mesmeric transition, as it were, they will likewise be convinced of the truth of our arguments, and the battle is then won, victory is ours! Respectfully,

No. 15.

Pointers.

Don't forget that you should at *all* times call on *all* the trade of the class you visit at *all* the places you make.

Salesmen in sending in orders from mail towns, in cases where they wish to add the town to their list, should send in the notice with the order. If order comes in the last of the month and the addition a week or so after, the monthly report is completed and the salesman has no credit for that order.

Mr. J Collet's Series of Articles on "History of Paints and Colors."

The paper which appears in part in this issue was prepared by our chemist, Mr. J. Collet, and read before the Committee of Review, Office and Factory Committees at the first of the weekly joint meetings of these committees that have been arranged for the purpose of furthering the knowledge of its members in a more perfect insight into the materials and methods employed in producing our varied line of products. We believe that the information derived from a careful perusal of these papers will be appreciated by our representatives, and make better salesmen of them, as well as enable those in our office and factory departments, through the broader knowledge derived, improve the character of their work. These papers will appear regularly in THOUGHTS in future.

Probably an Oversight?

What appears to us to be an oversight on the part of those representatives (all except one) who favored us with papers on the subject of "How to Sell New Era High-Grade Prepared Paint" is the failure in each case to lay any special stress upon the means of bringing the goods to the favorable attention of consumers by displaying them prominently and attractively in the show window, on the counters or shelves, as well as neglecting to recommend means of securing the best use of the expensive advertising matter we furnish. In the sale of these goods particularly we should not overlook the fact that the dealer is only the starting point. Between the dealer and the consumer come the painter, builder and architect. They have not been overlooked by those who contributed articles. But what about the consumer? He is the one to whom we must make final appeal. His "yes" or "no" settle the question. Calling on consumers who intend to paint is good advertising, but it is not broad enough. Who will do this when a salesman is not on the ground? The advertising matter works constantly, *if it is used.* You should instruct the dealer how to use it to best advantage. Question him on the subject every time you call. Tell him we always stand ready to fire a special broadside in his behalf if he will only tell us where to point our guns. He should himself, however, keep up a steady fire of musketry that is bound to be heard and felt, and will enable him to advance steadily. "Show up your goods," as Mr. Barron says, but see that the dealer shows them up too, and see that he shows them all up *all the time* and in *every possible way.* Our advertising matter is educational, but how can we educate the consumer by means of same if he don't get it, and how can he "settle the question" in your favor if he is not educated properly?

How to Sell New Era High-Grade Prepared Paint.

BY NO. 15.

All manufacturers of ready-mixed paints claim to have the only strictly pure article upon the market, the only line that is free from adulteration, the only paint that will wear longer, go further, and look better than lead and oil.

As a rule the majority of our customers are not practical men, and have little or no knowledge of the goods they are handling, from a technical point of view. They listen to what we have to say, and after we have talked for an hour or two expatiating upon the superior quality of our goods, quietly remark: "Oh, you fellows all talk in the same strain; who am I to believe?"

Now then, how to overcome all this and convince them of the truth of what we claim. If possible open a can of High-Grade, but, by way of parenthesis, before doing this weigh a gallon can of the paint, compare weights with those of other manufacturers, measure height and diameter, again compare, and I think by this time you have convinced buyer of two points, namely, weight and size of package. After opening can, note first the smell, and if you detect the odor of benzine instead of turps, call the dealer's attention to it; see whether the liquid is an emulsion or of a soapy nature, and if so add a small quantity of water, which, if it mixes readily, proves that the paint itself has a certain proportion of *aqua pura.* Then make a practical painter's test: Take new clean brushes, stir up your paints thoroughly and paint surface of small board, preferably one that has previously been primed with lamp black and note result. In all my experience I have yet to find a mixed paint that will come anywhere near covering the same amount of surface as our New Era High-Grade.

So much for mixed paint competitors. I presume that the experience of the balance of my fellow-travellers is similar to my own, they find their main competition in lead and oil, and the prejudice existing in the minds of almost all painters against anything in the shape of a mixed paint. If possible call together a number of painters, select one of their number to make comparative tests between New Era High-Grade and lead and oil. Open up a can of New Era Outside White, carefully decant the liquid, and weigh pigment remaining in can; weigh out similar quantity of some well-known brand of white lead, measure the oil you have decanted from New Era, pour back into can and see that same is thoroughly mixed with pigment, measure out similar quantity of linseed oil and mix with white lead, then test for covering quality in the same manner mentioned above for mixed paints. Do not doubt the result as I have made this test frequently and have yet to find an instance where our paint did not come out on top. In this way you have gained the good-will and confidence of the painter. Have a friendly talk with him, explaining the merits of your goods. Show up your analysis and the guarantee of purity you give with the goods. Impress upon his mind that it is a false idea that mixed paints are antagonistic to practical workmen, that on the contrary we always advise that same be spread by practical painters, and that unless so spread we will not be answerable for the results.

Then make a visit to the architects, explain to them what your paints are, wherein they are superior, and how they surpass lead and oil. If possible try and have him insert New Era High-Grade in his specifications.

Now call upon the consumer, first learning from dealer what prices he wishes to obtain, and have a talk, trying to explain wherein our paints excel others. In my experience I find that the consumer is the best man to tackle, as here we commence at the fountain head or foundation stone

Respectfully, No. 15.

Editor THOUGHTS:

Mr. Barron's paper (just read it) is a *dandy.* I think he deserves the prize and I'm glad to see him get it. Yours,

No. 14.

Criticisms.

No. 85 enters orders for Top Dressing: 6 pints instead of ½ dozen pints.

No. 27 attaches advertising slip, but fails to mark "ads." on order sheet.

Notes.

No 14: Your letter in our issue of the 28th ult. is very much to the point, and contains good "horse sense" The Credit Department don't know it all, but in cases of *doubt* will endeavor to be on the safe side. Let us have some more ideas in this direction.

Thoughts

PUBLISHED WEEKLY BY THE ACME WHITE LEAD AND COLOR WORKS, DETROIT, MICH.

Devoted to Matters of Interest to Our Representatives.

VOL. I. DETROIT, MICHIGAN, NOVEMBER 11, 1899. NO. 9.

History of Paint and Colors.

BY JOHN COLLET.

Before I enter into a more thorough discussion of paint and its constituents, that is, the various pigments and vehicles, or liquids, in which these pigments are mixed or ground, and before I attempt to give you a fair understanding of what we may call: "Chemistry of Paint and the appliance and relation of the former to the manufacturing of the latter, and its constituents in particular," permit me, as an introduction, to make you first acquainted with: "The History of Paint and Colors"

A short, well-to-be-understood explanation of color, its origin and meaning, in a concrete sense as well as in an abstract point of view, will also be a subject of the first chapter of our educational meeting or symposia.

No doubt paint is as old as man and very likely a good deal older, for when we assume that in the pre-historic times long before man inhabited our planet, one of those gigantic animals as mastadons, mammoths or other saurier rolled himself in marsh and moor in order to cover his immense body with a coat of mud, so was this kind of "dipping" doubtless only done with the purpose of protecting himself against the burning rays of the sun and the molesting bites of flies and mosquitos, the size of which was very likely proportionate to that of these first pre-historic painters. It shows us also that the "dipping process" in painting is not as new and modern as we think it is. The paint in this kind of early painting was certainly used more for "protecting" than "decorating."

Later on, man made his a pearance (on our globe), and we may rest assured that he adopted in the first state of his existence the same kind of protecting painting. Being, however, gifted with a higher sense he soon commenced to beautify his coat of paint by using various colored earths as nature would provide him, and as soon as he learned by necessity to build abodes and dwellings to find shelter against the elements, and became thus naturally more and more sedative in his habit of living, he applied paint also in a decorating purpose to his dwellings and to his edifices of worship.

Man became historic, and with him and with that period we may date properly the history of paint.

If we go back, say 800 years before the Christian Era, the time the Babylonians erected the Temple of Baal, the history of which, thanks to recent scientific investigations, is clearly and undefiantly known to us, we see inscriptions on tiles found in excavations on the spot where this immense building for the worship of Baal (the god of sun) was located, several times paint or kalsomine mentioned, and as a matter of fact, tiles and other articles have been found that were painted with what was recognized as bitumen or asphaltum.

These paintings were crude, much more so than those of the ancient Egyptians, whose history we are able to read now without any fault down to 6,000 years before Christ.

If paint ever had a history it had so with the ancient "Pharohs on the Nile." Indeed their history is a history in paint, and is written exclusively and read by their most elaborate paintings.

6,000, or rather 8,000 years, is a very long time, and when we think that all these paintings, applied on wood, canvas or stone, are just as fresh and bright as the time they were painted, we must indeed give the highest credit to the marvelous skill and knowledge of these ancient painters.

The selection of pigments for outside work was in fact so judicious that on pillars and walls exposed for so many thousand years to the hottest sun and to the grinding sand-blast of the desert, the stone under the paint crumbled and perished but the paint stayed, holding in many instances under its coat the honey-combed stone together. Their inside work, and especially the decorations of articles at tombs and sarcophagi were even more astonishing. The mummies and caskets of their rulers, as taken from the tombs, where they were laid to rest so many thousand years ago, show the paint with which they were decorated intact in the fullest sense of the word. Bright, and without any fading or cracking, the red, blue, green and yellow of the various hieroglyphics are presented to our eyes. The writer himself saw in one of the largest museums on the continent specimens of these ancient Egyptian masters of the brush.

The selection of these, we may say imperishable pigments, came naturally down to the Greeks and later to the Romans also, and we meet, therefore, these colors again in the excavation at Pompeii and Herculaninm at the foot of Mount Vesuvius. Both cities perished, as is well known, in the year 70 after Christ, in one of the eruptions of the named volcano, and lay buried under lava and ashes nearly 2,000 years. Astonishing is here also the preservation of paint in the paintings on the walls laid bare by these excavations. Among others a complete paint-shop was discovered with pots of paint and tools, and many a bath and toilet room of a Roman lady was brought to light again, showing intact on the marble dresser in the concubinium the various pots and vases of paint used by the fair inmates for beautifying their faces, hands, and strange to imagine, but true, their feet also.

Naturally we ask: "What kind of pigments and vehicles did these people use to obtain a paint of such marvelous durability?"

Chemical analysis, in connection with many data given to us in various scriptures by Theophrastus and especially Pliny (the Webster of the period), gave us the answer.

Very incompetent and small were the means of the ancients to produce dry colors artificially, but still especially the Egyptians have proved to have been quite experts in the production of artificial blues and reds, for as a matter of fact they were using a blue resembling very much our present ultramarine blue in color and chemical construction. It is not the natural "lapis-lazuli," or blue mineral, but an artificially made pigment. The secret of its manufacture had been lost and was never transferred to the Greeks and Romans. The blue used by these nations were simple copper blues on a lime basis. 6,000 years later, in the year 1820, chemistry enabled our modern color-makers to duplicate this Egyptian blue in the present ultramarine blue.

TO BE CONTINUED

Directory.

No 90 assists No. 8.

W. A. M. Woodward

Thoughts

PUBLISHED WEEKLY BY THE ACME WHITE LEAD AND COLOR WORKS, DETROIT, MICH.

Devoted to Matters of Interest to Our Representatives.

VOL. I. DETROIT, MICHIGAN, NOVEMBER 18, 1899. NO. 10.

History of Paint and Colors.

BY JOHN COLLET.

(Continued from last week.)

The ancient artists having had a very limited knowledge of chemistry and color making were therefore naturally compelled to fall back to nature and to use such material and pigments as "mother earth" would provide them with, and as we all know these natural or native pigments being the fastest and most durable ones, we have to deem it very wise and fortunate for us that providence enabled us thus to read the history of these ancient nations through their paintings with such lasting and durable colors.

In regard to the pigments used in these paintings and inscriptions, they were, as I said before, mostly of native nature. Thus, for White, Gypsum and Carbonate of Lime were used, the former especially for priming and the latter as a white base in tints. The Yellows and Reds of the Egyptians are Ochres and Sulphur, compounds of arsenic, however Cinnabar, or natural Quicksilver Vermilion, Red Lead and Orange Mineral were also known to them, at least the Greeks knew these pigments and also White Lead, as a natural product — the so-called Ceruse; they knew also to manufacture Red Lead from this Ceruse. Their Greens were Copper Greens and natural manganese earth, the Verona Greens of a later period. Their Blacks were Lamp or Carbon-Black, manufactured in identically the same way as we manufacture Lamp-Black, that is, condense the production of combustion of resinous matter, and use the produced black soot as pigment.

As much light as the modern chemical analysis gave us in regard to the constitution and properties of the pigments used by the Egyptians, Greeks and Romans, so much are we left in almost complete darkness in regard to the vehicle or binder these nations were using. However, if we take into consideration that the southern part of Europe, Asia Minor and Africa, abundant with many species of Mimosa and other trees yielding Gum and Resins, and that the properties of Gum-Traganth especially, and the manufacture of Gelatine-Glue was known to the ancients, and that very probably they had the knowledge of the drying qualities of one or other vegetable oil, we may assume that they were experts also in manufacturing a vehicle or size for their pigments. That they were experts is proved by that not one of their paintings show cracks, blisters or peeling as so many of our old ones do, painted only 100 or even 200 years ago.

The preparation or manufacture of paint with the ancients was naturally crude, but not very much cruder or simpler than it was actually with us to about 50 years ago. Slab and muller were the grinding tools, and as we all know, our own fore-fathers used the same, and in fact we may still find these slow and cumbersome tools in many a paint shop.

However, the last half of our present century brought with all its inventions, discoveries and modern improvements the same revolution and progress in the manufacture of paint as it did with so many others. These improvements and the various models of machinery, as mixers and mills, used by the modern paint and color-maker, will be, however the subject of a separate discussion.

Then I said that paint was as old as man, so may I say the same of Color, for there would not be paint if there was no color, the word color applied in a concrete meaning.

What is color? The explanation of this term is two-fold. When a beam of white light, say sunlight, is made to pass through the angle of a triangular prism and the passing light is caught or thrown upon a screen we find that it has undergone a wonderful change. It is spread out in a band of many colors, and colors of the rainbow, of which we can easily distinguish six, that is, Red, Orange, Yellow, Green, Blue and Violet.

We see these colors by the effect or by the sensation they produce by their action on the nerves in the retina of the eye and by the transmitting of this sensation to the brain. These colors have, therefore, an abstract existence only. We see, but we cannot handle them, and when we speak of a color we use the term color in its abstract sense to indicate the sensation which this color creates in our eyes and brain.

However, if we speak of colored bodies as colors, bodies which give the sensation of color, so do we mean that we can impart color to other bodies by the appliance of these colored bodies. The word color is used then in a concrete sense and indicates tangible bodies which we can handle at will.

Although the subject of color in an abstract sense and the nature of colors produced by the splitting of a beam of light in its six or more spectra is very important and interesting, this short essay does not intend to enter more closely in a discussion of same, but will pass over to the "Cause of Color in Colored Bodies."

When light falls upon a substance, the light may be affected in one or two ways. It may be be reflected, that is, it may be thrown back from the body, or it may be transmitted, that is, it may pass through, or it may be absorbed by the body on which it has fallen. As a matter of fact it is by reflected light that we see bodies. Upon the character of the refecited light thrown off from the body depends its color.

If all the rays of light falling upon it are reflected then the body appears to the eye white: if all the rays of light are absorbed, that is, none are reflected, the body appears black. If some of the rays are absorbed and the rest reflected, then the body appears to be colored, the color being of that of the reflected rays alone or in combination, that is, if only the red rays of the light are reflect d the body appears red; if the yellow rays, the body is yellow; if the red rays and a small part of the blue rays are reflected, the body appears red with a bluish tint, and so on *ad infinitum* in combination.

Why such or such a body appears to us in such or such a color, that is, why it reflects its color, separated from white light and absorbs the rest of the light is as far as our knowledge goes, almost impossible to investigate, and science takes refuge here, as in so many cases, to hypothesis, saying: "The color of a body, or what is the same, the properties of a body, to reflect a certain combination of spectra and absorb the rest, creating thus in us the sensation of its color, is due to the molecular construction of this same body.

This theory is very well verified and may be explained by taking basic Chromate of Lead, the American Chrome Vermilion for example. This pigment is a bright scarlet red body, its red color being due to the size and

density of its crystalline molecular construction. If we grind this red pigment and break by force or friction these crystals, the color will be changed into an orange, or even by harder grinding into yellow. The chemical constitution of the pigment as a chemical body is not changed at all for it shows in chemical analysis the same composition, that is, that of basic Chromate of Lead, but its molecular construction was changed, the position of the different molecules in the body or its density was altered, and herewith its properties to reflect the red rays. Its construction after grinding is altered in such a way as to reflect yellow rays, or what is the same it became yellow.

Such bodies which we called colors, applying the word color in a concrete sense, are known under the term, Coloring Matters. They may be, and are, so divided into two groups, Dye Stuffs and Pigments. The former are mostly soluble in water or alcohol, their properties and application relative to the manufacturing of paint and pigments will be, however, treated later on, while the latter are insoluble and they are the principal and solid bodies we use in the preparation and manufacturing of paints.

These pigments, their properties, physically as well as chemically, their manufacturing and their chemical relation to the manufacturing of paints, will be the first subject of a course of lectures. Explanatory experiments will be given also when and wherever such may be deemed necessary and apt to demonstrate the subject in a better and more comprehensive way.

What Have You to Say About This?

Davenport, Ia., Nov. 13th, '99.

Editor THOUGHTS:

Nov. 11th THOUGHTS duly to hand. History of Paints and Colors most interesting. Let the good work go on. I have for some weeks been going to make some suggestions on the varnish question for THOUGHTS But every moment seems to be crowding me with something that requires immediate attention this year.

Hard Oil Finish is getting to be a chestnut in many places. No. 1 Coach and Extra No. 1 are names that are adopted by every little varnish manufacturer and dealer. Why not have a change and adopt names that are peculiar to the Acme Varnish Co. For instance: Let's say Granite Oil Finish, or to be entirely distinct, let's call it Neal's Tough Oil Finish. Then if you want the *best grade* call it Neal's Perfect Elastic Oil Finish. Brother Missionary, is the last not a corker of the rubber kind (the best)? Now when we talk of Extra Coach, Extra No. 1 Light Coach, Extra No. 1 Coach, and No. 1 Coach, let's change Extra Coach to Elastic "A," Interior Finish; Extra No. 1 Light to Elastic "C," Interior Finish; Extra No. 1 Coach to Elastic "M," Interior Finish; No. 1 Coach to Elastic "E," Interior Finish; and leave the prices as they are. I would like to ask Our Family if they would not appreciate a brilliant little varnish hanger that could be sent to all our varnish friends, as also to the other fellow's friends? Not necessarily an expensive one but so attractive that the other fellows would hang it up and think.

No. 13.

Hamilton, Mo., Nov. 9th, '99.

Editor THOUGHTS:

The prize paper on "How to Sell New Era High-Grade Prepared Paint," written by No. 1, is an excellent one. The methods employed by No. 1, and explained in his paper, if followed properly, can only result in success.

Yours respectfully, No. 6.

Cartersville, Ga., Nov. 8, '99.

Editor THOUGHTS:

I have been receiving, and carefully reading, each issue of THOUGHTS, and for article published in No. 8, entitled: "How to Sell New Era High-Grade Prepared Paints" I extend my sincere thanks to Mr. Barron. 'Tis written in a very plain, comprehensible manner that all may readily grasp his meaning and points presented, from which I hope to very materially improve my ability as a salesman. As I am one of the junior members of the family (if not the "kid") I fully appreciate all the pointers obtained from the older and successful salesmen, who are kind enough to contribute what experience has taught them, and shall thank all our senior members for such articles. Very respectfully,

No. 75.

Editor THOUGHTS:

In No. 9's letter published in a recent issue of THOUGHTS, I notice he recommends that a slip be pasted on can to read as follows: "We do not guarantee the work unless directions are strictly followed." I cannot see wherein this would help us, as in all my experience I have never investigated a complaint where the person using the goods has not said positively that he or she had followed directions to the letter. For instance, I investigated a complaint this week on a barrel of Graphite Paint that had been put up since July last. There were two barrels made at same time, one being used on receipt and the other standing until now. The painter swore that he had mixed it thoroughly, in fact had removed head of barrel to do it. I found that he did that all right, but the paddle he was using to stir with was a piece of strap-iron 1½ in. wide and 1-16 in. thick. Quoting a remark of No. 12 in issue of Oct. 7th: "You can see the fault was entirely with the paint (?)".

San Francisco, Cal., Nov. 11, '99.

Editor THOUGHTS:

In answer to question of No. 6 in issue of Oct. 21 as to how much oil and how much white lead it will take to make a paint of equal consistency to our New Era High-Grade, would say 4⅝ gals. oil to 100 pounds Carter's white lead, and 4½ gals. oil to 100 pounds National white lead.

No. 15.

Ashley, Ill., Oct. 6, '99.

Editor THOUGHTS:

I frequently strike parties who want a small quantity of some one of our specialties, quantity too small to order direct, and have to depend upon their promises to order from the jobber. I have thought over many plans to make the promises *sure*. Would it not be compassed by the traveller proposing to take the order and forward it to the jobber specified by dealer, requesting the jobber to pack in next order, or ship immediately, as per directions. Blanks for such orders can be gotten out in a nice shape. Say line for place and date, with next line for name of jobber; line upon which to specify whether to ship with next order or otherwise, blank space to make order in with per cent., to be same as in our Rapid-Seller booklet; and line upon which dealer signs his name. The name of the traveller not to appear anywhere; the blanks to be in blocks, with stub upon which note of order can be made: traveller to address and mail. No. 9.

Cleveland, O., Oct. 10th, '99.

Editor THOUGHTS:

I wish to say a good word for Dewey Primer. In 12 years' experience selling your goods to the manufacturing trade I have never before had a primer to offer that would knock out Durand Primer *everywhere, spot or place* as Dewey *will and does*, neither have I ever known of any other manufacturer's agent to have one. Only last week at Jackson, Mich., Miles, the foreman painter for 12 years with Aspinwall Mfg. Co., told me before his superintendent that Dewey was a superior goods to Durand. Miles says he never saw before a Primer that enhanced and enriched the Vermilion as Dewey does, and says he is using not only the Dewey Primer cut down ten per cent. thinner for dipping than he ever did or could the Durand, but he is also using the No. 14 Paste Vermilion (which we have sold them for years), ten per cent. thinner and gets just as good results. This I know and saw the work, which is A1, and all very gratifying to me. Might say further this firm has used Durand Primer against all others for 12 years.

Yours, No. 4.

Thoughts

PUBLISHED WEEKLY BY THE ACME WHITE LEAD AND COLOR WORKS, DETROIT, MICH.

Devoted to Matters of Interest to Our Representatives.

VOL. I. DETROIT, MICHIGAN, NOVEMBER 25, 1899. NO. 11.

Paint and Its Solid Constituents—The Pigments.

BY JOHN COLLET.

The liquid composition to which we have given the term and name "paint" is used to an enormous extent for two purposes: first, to act as a protective substance or coating to preserve the surface of the body on which it has been applied from the destructive action of the weather; and second, as a mere decorative agent.

The first object is brought about by making the Paint with such materials which are not acted upon by the various agents in the atmosphere, such as water, carbonic acid, oxygen, heat and light, all of which exert a more or less destructive effect on bodies which may be exposed to their action.

The bodies which have been found to resist this destructive action of the atmospheric influences are the various so-called drying oils, resinous matter and the pigments. These materials, mixed into a liquid composition, that is, what we call Paints, when applied to the body to be painted and afterwards exposed to the atmosphere, will dry and leave behind it a hard, but elastic and opaque coating which may be more or less lustrous and be capable of resisting weather and other influences. The oapacity and the color of this coating we obtain by using pigments or solids of various kinds, which also tend, according to their nature, to increase the resisting power of the paint.

These pigments are mixed with liquid bodies, such as oils, spirits and compound resinous preparations, which are used partly to obtain a composition that is easy of application, and partly to secure volatility so that they will evaporate, leaving behind a hard mass firmly binding the pigment to the body over which they have been painted.

The liquid bodies such as mentioned, their properties and relations to the manufacturing of paint, will, however, find a proper place for discussion later on.

The primary purpose of paint is, as said before, to hide the character of the surface to which it is applied and protect this surface, but paint is also in the most cases more or less colored in order to secure at the same time decorative effect, and this coloring, as we know, is effected by the addition and use of various colored pigments.

Among the group of pigments used in the manufacture of Paint, the white pigments take doubtless the first place.

They may be subdivided into two separate groups; first, as so-called body colors, they are the principals which give body and covering capacity, especially to the white and tinted paints, and include White Lead, Lead Sulphate, the so-called Sublimed Lead, Zinc Oxide, Zinc Whites, and Zinc Sulphide or Lithophone; second, sa extenders or inert pigments, comprising the group of Barytes, China Clay, Silex, Whiting and others.

The most prominent place in the first group of white pigments is doubtless taken by Basic-Carbonate of Lead, the White Lead of commerce. As we have seen, White Lead has been known and used as pigment for centuries, for the Greeks and Romans used the natural Carbonate of Lead, the so-called Ceruse. As this natural product is found only in comparatively small quantities, and as its properties and qualities made it in the highest degree desirable and adaptable for the use as Paint pigment, the human genius was, therefore, naturally bent towards finding a process for the artificial production of this white pigment.

It is not known when White Lead was first made, who made it, or to what country it owes its discovery or invention. Evidently White Lead has been made for at least two centuries, for we see the oldest known method, the so-called "Dutch Process" mentioned in 1640, a method which has not undergone considerable change during all this period up to the present time, and, although a number of processes and almost innumerable modifications of processes have been devised, the ancient "Dutch" process still remains pre-eminently the best process for the manufacturing of White Lead, at least that is what its advocates say, for whose benefit and advantage it is doubtless the best process.

Before, however, we enter into a discussion of any of these processes and into that of the "Dutch" and of the Carter processes, the only two used to any extent in the United States in particular, and as only few people realize the importance of commercial White Lead and the extent to which it is used in the manufacturing of other goods, and as many do not even know that it ought to be the principal base of almost all paints having any value whatever, excepting possibly artists' colors, and as generally speaking people do not know how White Lead is made and have but a very vague idea as to its physical and chemical properties, and are consequently compelled to ask: What is White Lead? I shall first attempt, therefore, to give you a small understanding and a comprehensive explanation of the general physical and chemical properties of this pigment

A general knowledge of the properties of White Lead is the more desirable, as it will greatly help to understand and comprehend the manufacture of same. However, a more explicit and more detailed discussion of these chemical properties and their relations to the use of this pigment in paint will be taken up after we have become familiar with the different processes of the manufacturing of White Lead. These chemical relations can then be better explained by a comparison of the qualities of different products produced by different processes.

The commercial article, White Lead, is an amorphous white pigment, possessing all the good qualities desired by painters, that is, good color, body or covering power, and fair permanency. It is distinguished from all other pigments by the ease with which it mixes with oil and by forming a paint which readily flows from the brush, dries quickly, resulting in a hard but elastic coating of paint.

TO BE CONTINUED

Editor THOUGHTS:

I am much pleased with No. 1's paper on the subject of "How to Sell New Era High-Grade Prepared Paint." I think it hardly possible for any one to cover the points better than he has done. Yours, No. 12.

Notes.

Salesmen should be careful when sending in samples to see that each sample is plainly and properly marked.

Thoughts

PUBLISHED WEEKLY BY THE ACME WHITE LEAD AND COLOR WORKS, DETROIT, MICH.

Devoted to Matters of Interest to Our Representatives.

VOL. I. DETROIT, MICHIGAN, DECEMBER 2, 1899. NO. 12.

Paint and Its Solid Constituents—The Pigments.

BY JOHN COLLET.

(Continued from last week.)

Chemically White Lead is a basic Carbonate of Lead, that is, it is a chemical combination of Lead Oxide, Carbonic Acid and water, or rather a combination of Carbonate and Hydrated Oxide of Lead in the proportion of two parts of the former to one part of the latter. But, as a matter of fact, White Lead is not always of this composition exactly, but differs sometimes to a great extent, as regards the proportions these two constituents are present.

By chemical analysis and practical tests, however, it is more than doubtless proved that a White Lead, having the above composition, or showing 86.32 per cent. Lead Oxide, 11.36 per cent. Carbonic Acid, and 2.32 per cent. Water, equal to 68.95 per cent. Lead Carbonate and 31.05 per cent. Hydrated Lead Oxide, or to the chemical formula: $2Pb\,CO_3$; $Pb_2\,H\,O_2$ is to be considered a standard of the best quality obtainable, from a painter's point of view.

A White Lead that differs from this composition has one or other faults. This may be explained as follows: It is the Hydrated Lead Oxide that unites with the oil, giving thus as a lead soap, or a lead fatty varnish, or the elasticity and the flowing properties to the paint, but, hydrated Lead Oxide alone would have little opacity or covering power. This latter is imparted by the Carbonate of Lead which also imparts the white color to the pigment and thus to the paint. Both constituents are necessary, and, as I said before, in order to give the best results in just the given proportions, or nearly so, for hydrate Lead Oxide alone would turn yellow and has no opacity, and Carbonate alone having opacity and whiteness, lacks elasticity and would chalk off.

The two constituents, however, combined chemically in the indicated proportions, balance one another in regard to their properties in such a proper way that the pigment produced is considered and classified as the best of all painters' pigments.

The question arises now which process will produce a white lead corresponding the nearest to this composition? Taking all the faults and weighing them against the many good qualities and properties of white lead produced by the old "Dutch" process, we have to say that the question is answered by the pigment produced according to this method.

The Dutch, or Stack, process takes advantage of the production of heat, water and carbonic acid in the natural fermentation of suitably chosen organic matters, as dung, manure and tan-bark, and depends upon the reaction of these in conjunction with acetic acid or vinegar on metallic lead.

The process itself may be subdivided into three series of operations.

The first consists in a physical change in the lead metal from pigs or bullion into buckles or straps. The latter form is, however, especially here in America, mostly abandoned, and buckles or discs are used. They are not solid discs but contain holes in order to expose more surface of the lead metal to the corrosive agents. They are about 4 to 5 inches in diameter, 1-8 to 1-4 inches thick, and weigh from 10 to 16 ounces each.

As the vapors of molten lead given off by the melting and molding of these buckles is very hurtful to the health of the workmen, an apparatus which guards the worker against these dangerous influences has been generally adopted, and consists of a melting pot of cast iron, hooded with a funnel leading to a high chimney, which assures a good draught. A cast-iron door with double vent holes, opening by slides, allows the hood to be shut, and this is indispensable, especially when the oxidized lead resulting from preceding operations or white lead scrapings are to be fused.

The metal is introduced into the melting pot where it is heated progressively in such a way that its temperature is never more than a few degrees higher than the melting point, that is 635 degrees Fahrenheit. The door of the hood is then opened and the melted lead is run out into molds of cast iron from which it is taken out after cooling.

To speed and simplify the operation of molding a table turning on a pivot is advantageously employed. The casting and molding of buckles is done by hand, but recently a so-called buckle machine superseded here also manual labor, as in so many other branches of industry and arts. This machine receives the melted lead, casts and molds the buckles, and conveys them by means of an endless chain to the spot where they are placed into earthen pots, the so-called corrosion pots. These are earthen vessels 9 to 10 inches high, and 6 to 7 inches in diameter, provided with two vent holes and glazed bottom, in which to receive about half a pint of very diluted Acetic Acid or vinegar. They have a shelf inside on which the buckles, numbering 10 or 12, are placed.

The corrosion pots being filled with buckles and the diluted Acetic Acid or vinegar added, they are ready for the second series of operations—the building up of the stack.

The plant used comprises a building subdivided in stalls or chambers, the walls of which are generally made of brick, and having about 240 square feet of floor space, and are 20 to 24 feet high. They are open in front.

The bottom of these stalls is covered to the depth of two or three feet with spent tan from the tanneries, or with manure in which fermentation has already begun. On this surface the pots are set close together, leaving, however, ample space, say 8 to 12 inches between the pots and the walls. The outside rows of pots are higher and upon these boards are laid covering the entire layer. On these boards another layer of tan is spread, about 8 to 12 inches deep, upon this is placed another layer of prepared pots which are again covered with boards, and so on until the stack is completely built up.

The number of successive layers varies from 12 to 18. The space between the pots and the walls of the chambers is filled in with tan and the top is covered also. The opening in front of the stack is closed up with boards as the stack progresses in height.

The quantity of lead used varies considerably, 5 to 7 ton in a layer or bed, so that in a large stack there may be something like 80 to 100 tons of lead.

TO BE CONTINUED

How to Sell New Era High-Grade Prepared Paint.

BY NO. 7.

In answer to your request for an article on "How to Sell New Era High-Grade Prepared Paint" I beg to hand you my views on the subject, and hope to know much more about it after reviewing the articles submitted by my co-workers and fellow-salesmen.

In the first place you must interest the dealer in yourself, to the end that he will give up some of his time to hear what you have to say. This is important, as many dealers, when they don't want to be bothered with you, will make a point of waiting upon every customer who comes into the store, while his one, two or three clerks are swinging their legs over the counter or looking out of the window. However, should he do this you should invariably do your utmost to cultivate the friendship of these same clerks who appear to have such a "soft thing" as many of them are often consulted by the up-to-date dealer, as they are in a position to follow the demand and keep in touch with the requirements of his trade more closely in many cases than the dealer himself, and they can deal you a knock-out blow and a losing hand in one shuffle. You should get your man to yourself as soon as possible without intrusion, and if he has just returned from dinner he will make an attentive listener through the smoke of a "clear Havanna."

Then tell him in an honest way what you have to offer and what makes New Era High-Grade Paint the leading brand of mixed paint on the market, dealing carefully with the subject of supremacy over white lead and oil mixed by means of a paddle by a dishonest or incompetent painter, which two classes constitute a vast majority of the profession.

He will probably say that every paint salesman advances the same arguments, and ask: "Who am I to believe?" They do, in part. But they have not the convincing three or four pounds of extra weight per gallon to bear them out.

Have him first compare weights (and see that his clerks also note the difference); then he should carefully peruse our "Points on Painting" and, if necessary, (providing some of our paint is obtainable), you could make comparative tests, one, two or three coats, which will never fail to show up the "other fellows'" paint, or white lead in oil, in a manner most satisfactory to us. But do not cry down the "other fellow." He might be a warm personal friend.

Next explain our up-to-date methods of advertising, which have the effect of booming our brand in his locality, viz., our personal letters to prospective customers, our electros for local newspapers, our interesting epistles to the painters who have spread the "other fellows'" paint for years, and to those who are either strong lead in oil men or are on the fence. In short, show your man that we are hustlers and mean business—that we know how and are willing to do our share to secure same from him, but he must be willing in turn to do his. He should advertise in the local papers and mix up his ads. He should have a window display to conform with his paper ad., and must get after every man who is buying paint, and follow up our work personally, after giving us the names of those prospective buyers as well as the painters in his town.

Try to make this man alive to the fact that there is money in handling New Era High-Grade Prepared Paint to the man who pushes same, and that it is the only paint that will stand pushing in the face of all competition, and that will bear analysis and tests in comparison with other brands.

Try to interest him in the Acme White Lead and Color Works as a firm and in yourself as their representative, in the product which they turn out and their clean methods of doing business. Show him that we are here to look after his interests, to increase his sales and enlarge his profits. Get him enthusiastic, as you are, as you must be. Make him believe what you do and *must* believe, then get out and round up his painters and enthuse them (if possible ?), and to clinch the matter go out into the town and sell two or three jobs to be handled through him, so that he will have a living witness to the truth of your statements, the quality of your paint and the work which it will perform.

Then you have got your man either this fall or next spring. Don't let him get away from you, for when once yours New Era will keep him yours for indefinite ages.

But if this dealer won't buy New Era *now* you can *make* him buy it sooner or later by an aggressive campaign with the painters and consumers in his locality every time you make his town, and by furnishing the house with the names and addresses of the painters and a number of consumers there.

And lastly: When you have landed him, stick to your promises, so be careful not to make any unreasonable ones which cannot be kept.

Never give up because a man is too dead to his own interests to know what will bring him the most business. You can teach him what will do it, and if you can make a live man out of a corpse, and a hustler out of a live man, you can count on his selling New Era High-Grade Prepared Paint to his dying day.

The Third Anniversary

of the occupation of our present plant will be celebrated by a banquet, followed by dancing and a good time generally, on the evening of December 22nd. Prizes for the best suggestions made during the past six months will also be awarded at this time by our President. We wish that distance could be so readily annihilated that it would be possible for our many representatives in distant territories to be with us on that occasion, and aid in celebrating the triumphs of the past year, that they have so faithfully aided us in attaining.

A Suggestion for Salesmen.

While we assume that our representatives are all more or less familiar with the fact that paint, varnish, enamel, floor wax, etc., are used by sanitariums, asylums, hospitals, universities, prisons, and other institutions of this class, we cannot help wondering if you all realize the enormous quantities of these goods that are consumed by them annually. Everything that conduces to health and cleanliness is of paramount importance to such institutions. Frequently a number of workmen are kept busy the year round repainting and re-finishing. For the floors alone vast quantities of wax (which is the almost universal finish) is used. What a field this is for our Enamels for woodwork, bath tubs, radiators, etc., and for house paint for exterior use, let alone Flintowax for floors, the consumption of which would probably be greater than any other of the lines, for the reason that the floors require constant attention. This class of business lies somewhat out of the regular beaten track of trade and for this reason we believe it does not always receive the attention from our representatives that it deserves, but for the same reason we are inclined to believe good results could be secured if it were looked after more closely. We wish that each man would analyze his own work in this field and advise us for publication in THOUGHTS of the result of his deliberations, with the view of formulating some plan by which, with proper co-operation from the home office, his work in this direction could be made more successful.

Criticisms.

No. 13 enters Chloride of Lime: "2 regular assorted cases:" should be "100 lbs. assorted, 50 lb. cases."

No. 17 enters Household Paint: bright and regular shades, when sold at a discount, all together.

No. 10 enters Neal's Florentine Black Enamel: "6—½ pints:" should be: "½ doz. ½ pints."

Thoughts

PUBLISHED WEEKLY BY THE ACME WHITE LEAD AND COLOR WORKS, DETROIT, MICH.

Devoted to Matters of Interest to Our Representatives.

VOL. I. DETROIT, MICHIGAN, DECEMBER 9, 1899. NO. 13.

Paint and Its Solid Constituents--The Pigments.

BY JOHN COLLET.

(Continued from last week.)

When a stack is built up it is left for a period of about three months. During this period the whole stack gets quite hot through the fermentation of the tan or manure which sets in. Large quantities of Carbonic Acid gas and steam are given off and the Acetic Acid is converted into vapors. These Acetic Acid vapors, in contact with the oxygen of the air, act on the lead buckles, forming basic acetate of lead, upon which then the Carbonic Acid gas acts, converting gradually in an atmosphere saturated with moisture, the lead (technically termed "Blue Lead") into "White Lead."

At the end of three months the stack is torn down, that is, the boards and the tan are removed and the pots lifted out. It is found then that the lead which has been corroded still retains the form of the buckles, but is more bulky in volume, is white or sometimes grayish in tint, and opaque.

The percentage of corrosion in the "Dutch Process" does not, however, average 70 per cent. and sometimes falls as low as 50 per cent.

The corroded portion of the buckles is not of a uniform character throughout, the exterior being somewhat different from the interior owing to the facts that the corrosive agents corrode the surface of the buckles first and have to act through that already corroded in order to act upon the lead metal still unaffected. In fact if we were to cut a buckle in two, just as it is taken from the pot, we would have in the center the blue or metallic lead, and on either side layers of corroded lead, somewhat different in texture and color.

This difference of quality of the corroded lead in the Dutch Process is one of its great faults. The corroded lead in the stack, as same is pulled to pieces, is in some places flaky, firm to handle and does not break up. This kind gives the best quality of White Lead. In other parts of the stack the corrosions are soft and easily crumble into powder when handled. They yield an inferior quality of White Lead.

According to the difference in their physical properties, the corrosions taken from different parts of the stack show naturally all the variations in their chemical composition. In some places they will approximate closely to the normal composition of White Lead, that is, two parts carbonate to one part hydrated Lead Oxide, the proper basic Carbonate of Lead. In other words more or less nearly so, and in others they will be straight Carbonate of Lead.

The White Lead may also be more or less colored brownish by droppings of colored water from the layers of tan onto the lead, or through the use of a very cheap and impure tarry Acetic Acid. But this is not detrimental to the final product, as same has to undergo still many other operations, such as washing, sifting and grinding, which processes purify and whiten the White Lead before it is ready for the market.

But not so if, instead of tan, manure or dung were used as a generator of heat and carbonic acid gas. The sulphur compounds, especially Hydrogen Sulphide, generated by the fermentation of the manure, are apt to, and will darken the White Lead to a certain extent, and this discoloration cannot be obliterated by the above named operations, and this is the main reason why in the modern stack process almost mostly spent-tan alone is employed, although manure would shorten considerably the length of time in which the stack would be under operation.

The Lead is corroded, at least a certain percentage of it, and the next process, the third series of operations as already indicated, consists in separating that which is corroded from the metal, which is done by passing the buckles through the rollers or crushers. These break up the masses, the White Lead crumbles to powder, while the unchanged Blue Lead is flattened out into thin plates. The latter is sent to the melting pot again, where it is melted and recast for use in building up another stack. A few small particles of Blue Lead, however, pass on with the corroded lead, which are very difficult to remove.

TO BE CONTINUED

How to Sell New Era High-Grade Prepared Paint.

BY NO. 9.

Ashley, Ill., Oct. 6, '99.

Editor THOUGHTS:

You are propounding a hard question, and I can only answer by giving my experience in introducing other brands in former years, and some of the modes adopted by other parties. The first essential is working, the next is how to work. This depends upon the party you are trying to secure, and it is essential to success to know him and his peculiarities. Knowing your goods and the claims you have for them you must press these, not by insiduous comparisons and claims of superiority over any and all other goods, but by fair and honest statements which, should you secure an order, the dealer will find positively true and thoroughly supported in the use of the goods. The combatting of the point so frequently brought up "that your goods are higher in price than those we now handle with satisfaction," is best met by showing that when the difference in weight is considered ours present a cheaper basis of original cost, as the large majority of whites on sale rarely go to fifteen pounds to the gallon, and when you ask them if they or we can make two-and-a-half pounds of good paint for ten cents the answer is always in your favor. But still they stick to the point that if they have to pay ten cents more per gallon they have to add ten cents per gallon to selling price, and their customers won't agree to pay it, especially as their competitors have made no advance on their brands, which have been looked upon and are recognized as first-class goods. I am now writing of conditions in my territory, where every man wants the most money for the least work and talk, and where but few will look carefully into actual results and profits. In the original working in of Martinez & Longman's paints their men made their first work with the painters. The traveller called on the best painters, talked up his goods, took the name of the painter, reported one or more according to size of market to the house, and they would send to the painter a gallon or less with one or two new paint brushes asking him to accept

both, requesting that he make a careful test of the paint and either report by letter or report to the traveller on his next visit, and in the meantime if the sample sent him is in every way satisfactory that by recommending it to the dealer he buys from he would confer a favor which would be reciprocated in some way. I have learned that this plan worked well. Another scheme worked by Patterson & Sargeant during the past year, is for their man to go to a place, find out some one or two new houses going up, call first on the contractor, then the owner, and lastly on the painter, get in touch with them, get the owner to consent to have their paint used, then get the painter to go to the best dealer in the town with him and propose to the dealer to let the goods come through him, and if they prove satisfactory to all parties promise to give the agency to the dealer, if he is a good party. This plan, which I saw worked at Mayfield, while it takes time and is better handled by a traveller who has been a painter, and can better handle the painter, as there is a species of masonry among painters, while it is costly in time consumed, has won in many instances and the goods are held up to standard, will hold them where they have been put, and from this holding will eventually come the profit to the manufacturer. There are many other schemes worked with varied success, but the main and all-important secret to success is constant, intelligent, honest work. Not because you can't get an order on first presentation must you let up. Try one scheme or method the first time, if that appears to interest, but owing to existing conditions fails to secure an order, try it on same line of presentation next time, using whatever you may have learned of the success of the goods since first visit. If first presentation did not strike the party, on second visit use some other line of talk, but have in all of them "thorough and careful consistency." This can be easily done by never claiming anything but what will be upheld by the goods, for we don't know where lightning may strike. So I say work, work, convincing the dealer that you are honestly trying to advance his interests as well as your own, that you are not trying to put on him anything but what you honestly consider the best, and it will win in the end, though sometimes it takes a long time.

Salesmen when requesting samples sent "gratis" to painters, will please state in letter if for the purpose of interesting and selling painter, or for purpose of getting his good will and thereby selling a dealer. If the latter, we do not want to spend money getting reports on the painter.

Detroit, Mich., Oct. 22nd, 1899.

Editor THOUGHTS:

The selling of paint is unlike that of placing most other lines of goods, for the reason that with other goods, very many lines, at least, the value may readily be seen by the buyer, whereas with paint it is largely a matter of confidence in the seller. Prejudice is a natural product of ignorance, and paint makers and salesmen are largely to blame, either wilfully or by reason of their own ignorance, (I am charitable enough to credit it mostly to the latter), for much of the prejudice that exists in the minds of most buyers and consumers of paint. They have so often been told by the salesmen that the only escape from bad results, such as peeling, chalking, etc., is to buy and use his particular product, and when acting upon such advice have met with such unsatisfactory results that they are ready to exclaim with the psalmist "All men (paint men) are liars." *How shall we overcome this condition.*

There can be no rule laid down as to how to sell New Era High-Grade Prepared Paint. There are a few things, however, that I believe a salesman should be absolutely sure of. First, he should know the goods he is selling. Too many men are taken into the office and filled up with the one idea of the wonderful superiority of the paint he is to sell, and sent out to sell the goods without being made thoroughly acquainted with its composition and why certain articles are employed in its production. Fortunately for us no salesman need be ignorant of the value of New Era High-Grade Prepared Paint. Its composition is not a mystery and great pains is taken by our instructors to show why a combination of lead and zinc makes the best white base, and why linseed oil is the only proper vehicle to use in its application, if satisfactory results are expected; but many things must be learned by experience. The salesman should study to inform himself as to the result of the chemical action of lead and zinc combined as a base. What is the influence of such a base upon colors used in producing the shades as compared with other white substances? Why are primary colors better to use in producing shades than umbers, siennas and other fugitive colors? He should be able to give the reason why linseed oil is the only proper vehicle to use in making paint where protection to the surface and lasting quality is desired; why the necessity to use dryer; under what condition it is safe to use turpentine and why it is used; in short, he should know that our New Era High-Grade Prepared Paint is the best that any man or set of men can produce, and be prepared to prove it. He should learn everything he can about his competitor's product and be sure not to refer to it unless compelled to do so. A salesman thus equipped will be able to present his line to the merchant in a candid and intelligent manner; will avoid making extravagant statements and should not fail to make a favorable impression. He should also be prepared to meet criticism, for criticism will come. Unsatisfactory results are bound to be experienced occasionally, even with the use of New Era High-Grade Prepared Paint. The paint will sometimes peel. *The reasons for this are numerous, and are all outside of the paint itself.* How to detect and explain the causes can only be learned by study and experience.

With the securing of a customer our work, so far as volume of business is concerned, is only just begun. We must remember that with most of our customers the item of paint is of small importance as compared with the vast array of other goods to which he must give his attention. How can we create enthusiasm on the part of our customers for our goods? I believe the best way is already inaugurated, and is destined to form a very important part of our future work. I refer to the development of a plan for making known to the consumer the merits of our paint. To this end the salesman should be ready at all times to co-operate with the office work by visiting prospective consumers, showing them the economy in the use of our paint as compared with the unfinished product of lead corroders and cheap mixtures, making an estimate of the amount of paint he will require for the surface he has to cover, etc., cultivating the painters for the purpose of securing their endorsement of our product, or at least, their good will. These things require good judgment, care and a close study of the business, and speaking of co-operation with the office leads me to suggest that the office work forms no small part in the conduct of a successful business in our line. The man who attends to the correspondence, who answers enquiries, complaints etc., should know whereof he speaks; should know that a simple statement of surprise that there should be a possible chance of mistake, is a bluff that does not count for much in these days. The man who prepares the printed matter, which sets forth the value of our product, should know that brevity, conciseness and close adherence to facts, easy of demonstration are required in order to make the right impression. Harmony of action, oneness of purpose upon the part of all concerned, I believe, are absolutely essential to the successful placing of New Era High-Grade Prepared Paint.

Yours, No. 12.

Thoughts

PUBLISHED WEEKLY BY THE ACME WHITE LEAD AND COLOR WORKS, DETROIT, MICH.

Devoted to Matters of Interest to Our Representatives.

VOL. I. DETROIT, MICHIGAN, DECEMBER 16, 1899. NO. 14.

Paint and Its Solid Constituents—The Pigments.

BY JOHN COLLET.

(Continued from last week.)

Water is either added to the buckles before they are removed from the pots or at the time they are put through the rollers, or just after, in order to lessen the amount of dust which is so very poisonous if taken into the system by the workingmen.

In some cases, as I said, the corroded lead is not moistened until after it comes from the rollers, at which time a considerable quantity of water is added, the corrosion being carried to large tanks full of water, passing at the same time through a shaking or revolving screen, which retains the finer particles of blue and partly corroded lead. In these tanks the White Lead is thoroughly agitated, and the small traces of Acetate of Lead and Acetic Acid which it contains are washed out. After being washed the watery white lead-pulp is pumped into large water-mills, in which it is thoroughly ground, the coarse lead being returned again and again to the eyes of the stones, the fine White Lead being carried on with the water to another vat, where it is left to settle out.

The settled-out White Lead is either pressed or, as here in America, dried directly on large steam heated copper pans, and sold in a dry state or ground in Linseed Oil to a stiff paste and coopered up ready for the market. Many, if not almost all, modern corroders and grinders of White Lead do not dry their White Lead intended to be ground in oil any more, but grind the pigment as wet lead-pulp direct with Linseed Oil. In this process the Lead takes up readily the Linseed Oil, in fact better and much quicker than the dry pigment would do, the oil taking the place of the water, which is siphoned off by a special arrangement, the mixture of lead and oil passing through the grinding mills.

This lead is termed "pulp-lead" and its process of manufacturing caused no little controversy among the grinders, and especially among its consumers. A good number of the latter, the too conservative and therefore less progressive small paint manufacturerers and painters claimed, and do so still, that this lead is inferior to that where the pigment is dried before the oil is added, which is styled "pan-dried," in contrast with "pulp."

They say the small percentage of water which is naturally retained by the White Lead in grinding is detrimental to the final product, forgetting, however, that they themselves have the habit of adding a certain and sometimes even a larger percentage of water to their dry lead to be ground in linseed oil.

On account of the great importance of White Lead in regard to the manufacture of paint and other goods, this pigment deserved, doubtless, the foregoing more detailed discussion and explanation of its original and most met with process of manufacturing. Acquainted with the technical part of the process, and with the principal of the chemical reactions which take place inside of the corroding stack, that is, the generation of heat, moisture and Carbonic Acid, and their actions on the metallic lead, it will be now less difficult for us to understand a more explanatory and scientific discussion of the various chemical transformations the lead has to undergo, in this, as well as in other processes, in order to become the final product, *White Lead*.

These various successive chemical transformations, the Carter process, and a short explanation of other important methods, the principals of which and their faults I shall show and explain by experimental demonstrations, will be the subject of my next paper.

Editor THOUGHTS:

I think an excellent advertisement and big help in selling New Era High-Grade Prepared Paint in the way of securing help of painters, would be to print the combinations of colors on houses, same as large chart, on card board, about 6x10 inches, and samples of colors on opposite sides, put up in a nice neat case. They would please and win the good will of the painters and be a standing ad. for a long time to come, as they would be of practical use to them, and would be preserved and brought into use in all cases, as well as being a big help in winning their good will and help. Be a good fellow with the painters and you will be paid for it. What say the other salesmen.

Yours truly, No. 8.

How to Sell New Era High-Grade Prepared Paint.

BY NO. 14.

Editor THOUGHTS:

Select the largest, best and most successful business man in town. New Era High-Grade goes hand in hand with the big trade. He will see and appreciate a rare article, catch onto a good thing more quickly than the small 2x4 dealer; carry a gallon package of the "real thing." It will save two hours time, besides confirming what you say in regard to size, weight and appearance of the goods, and gives your after talk a weight because you have made good your first assertions. It is a good plan to take the package out of the case and place it on the scale when you first go in. Mr. Dealer will weigh it and incidentally look at the purity tag attached thereto, and this is your opportunity to say: "You note, Mr. Dealer, that we attach a certificate of purity tag to each and every gallon package that leaves our factory." Ask him at this time if the paint he is handling is a chemically pure article.

Mr. Dealer—"Oh, yes, it is sold subject to chemical analysis."

Salesman—"Our New Era High-Grade is not only sold subject to chemical analysis, but we give you a guaranteed certificate of analysis with each package, so that you know what the paint is composed of and your customer also knows. The makers of the paint you hold, no matter what it might contain, would be safe in selling it to you subject to analysis, because they very well know that you are not going to give up $50 or $60 to have it analyzed. For that reason you don't know whether you are really giving your customers what you claim or not."

Mr. Dealer—"Well, I have handled it now going on two years, and it has always given satisfaction so far as I know. I guess the paint is all right. Besides I have spent a lot of money advertising it, and by putting your line in this would be lost money."

Salesman—"When you talk about advertising, that's where we shine. We don't ask *you* to do the advertising. We do that

for you and do lots of it (here the salesman should display the advertising matter carried and show him the different show cards, sample cards, in fact everything that we offer in this line). We give you a piece of goods that will stand the kind of advertising that we do. Common, ordinary, mixed paint would not stand fire under our system of advertising. We advertise a full United States standard gallon of the best paint possible to make. We advertise a strictly pure article. We advertise what it contains. We advertise the analysis or formula. We advertise it to be pure carbonate of lead, oxide of zinc, and linseed oil paint. We know of no other manufacturer who dare advertise the formula or the so-called secret preparation. In fact the majority of them are afraid to publish the composition of their whiting, barytes, benzine and soap mixture. New Era High-Grade is not a secret preparation. We want you to know; we want your customers to know just what it contains, and when you do know what it contains you know it is the best paint made, or is possible to make."

Mr. Dealer—"How do you know that my paint is not just as good as yours?"

Salesman—"Well we have had several brands of so-called first quality paints analyzed. I'll look and see if I have a copy of the analysis of the brands you handle. Yes, sir, here it is. My firm do not give me authority to show these analysis papers to anybody, but just to let you know that you are not getting what you expect or pay for I'll let you see the analysis of the paint you handle."

Mr. Dealer—"Do you think this is a correct analysis?"

Salesman—"Yes, sir, correct in every particular."

Mr. Dealer—"Now I did not know this paint had any adulteration, but I see it has."

Salesman—"You will also note it only weighs three-fourths as much as New Era High-Grade, and it only contains a shade over three-quarters of a gallon."

Mr. Dealer—"Yes, I know the paint I handle only weighs about thirteen pounds to the gallon, but a good many paint manufacturers say that the weight don't count for much."

Salesman—"In ordinary paint it don't count for much, but when you come to figure on an absolutely pure lead and zinc paint then the amount you get and what it weighs cut a very prominent figure, but in common adulterated goods it does not matter, because it is simply how much water the manufacturer is able to put in."

Mr. Dealer—"How about the price? I get a pretty low figure on this paint that I am handling. I only pay $1 per gallon for gallons and the usual advance for smaller packages."

Salesman—"Well you get thirteen pounds of dope for a dollar, which is about 7¼ cents per pound. We sell ours at $1.10, which is about 6 cents per pound, so that New Era High-Grade is a good deal cheaper, not even taking the quality into consideration. Don't you think you can handle High-Grade on that basis? It's a nice thing for you to know that *your* store carries the best paint that is sold in the city, or in fact that is sold in the United States."

Mr. Dealer—"Will you take the stock off my hands in trade for your goods?"

Salesman—"No, sir, we can't do that. The paint manufacturers have all agreed not to make any exchanges."

Mr. Dealer—"If I put in a stock of your goods what am I to do with the goods I have got in stock?"

Salesman—"Just the same as you do with any other goods that you get stuck with, or with goods that have not come up to what they were recommended, or what you expected when you bought them. Reduce the price to nearly cost and close them out. There are lots of people looking for cheap goods to paint barns, fences, etc., and if you were to get your money back you are coming out mighty easy. You know *now* what's in your paint and you cannot any longer afford to recommend it as a first class article, so clean it out as soon as you can."

Mr. Dealer—"How big a bill must I buy in order to get the exclusive sale of your goods in this town?"

Mr. Salesman—"If you put in a stock the same size as the one you have now we will give you a spring dating, and fix you up with a lot of attractive advertising matter, and get everything under full swing before the spring season commences, and if you will co-operate with us we will help you get more paint business with the genuine article than all the rest of the dealers combined."

Mr. Dealer "Well, come in after dinner and we will fix you up."

Salesman—"All right, Mr. Dealer, thank you. I'll be in about three o'clock. So long."

Note.

This is a good time to look over your lists of towns and advise us if any additions or eliminations are to be made.

Merry Christmas To Our Salesmen.

The holiday season should be one of special pleasure to the man whose duties keep him away from family and friends for so much of the time as is necessary with the representative who must "work a territory" and continually "rub up against the world," and not, by any means, the pleasant side of it in all cases. We hope that this holiday season will be an especially enjoyable one to you all, and that with your families and friends you will be able to obliterate, in genuine pleasure, recollections of irregular hours, poor hotels, and crusty customers.

Something New.

THE AUTOMATIC "DRUMMER."

"Have you heard of the new automatic drummer?" said a Louisville travelling man as he joined the group in front of one of the hotels the other night. "No? Well, it's a great scheme. You see, the trusts have made brains absolutely useless in the business, and when a merchant has to buy at one place or go without, an idiot can take his order just as well as a man of superior intelligence, like myself. So to cut down expense some genius has gotten up this automaton. It is made of papiermache, and represents a drummer sitting on a sample trunk. The whole thing is about eight inches high, and is boxed up and sent to the retail merchants by express. When it arrives the business man sets it on his desk, touches a spring, which releases a phonographic cylinder inside the trunk, and the drummer begins to talk. 'Good day, sir,' he says; 'the following are our list prices on so and so,' and with that the machine reels off the latest quotations of whatever trust it happens to represent. At the other end of the trunk is a hole connecting with a receiving cylinder, and the merchant speaks his order into it. 'Thank you,' says the mannikin, when he gets through; 'I will now tell you two comic stories and sing you a selection from the latest opera.' If the merchant does not care for that part of it, all he has to do is to turn a switch. Then he returns the automaton to its box and expresses it back to the house, c.o.d. There the order record is taken out, a fresh one put in, and the machine sent to another customer. It's a wonderful device, and its advantages over a live drummer are too numerous to mention. It doesn't eat anything, it has no hotel bills, it runs up no expense account, and never draws on the house. Then, again, think of the enormous saving in railway fares!" So says a Trans-Atlantic paper.

Thoughts

PUBLISHED WEEKLY BY THE ACME WHITE LEAD AND COLOR WORKS, DETROIT, MICH.

Devoted to Matters of Interest to Our Representatives.

VOL. I. DETROIT, MICHIGAN, DECEMBER 23, 1899. NO. 15.

Paint and Its Solid Constituents—The Pigments.

BY JOHN COLLET.

The eminent German chemist, Justus von Liebig, was the first who explained the theory of the process of White Lead making by the Dutch or Holland method, putting same down in empirical chemical nomenclature and formulas. Later on Hochstetter and others substantiated his theories by experiments and analytical tests.

As you are not familar with the nomenclatures and formulas employed in chemistry I shall abstain as far as possible from using them, and will explain to you Liebig's theory of the successive chemical reactions in the following way:

We can divide the whole process into three distinct stages of action, bearing in mind that which we have to deal with, viz: Heat, metallic lead, acetic acid, water and carbonic acid gas.

The first action which goes on in the stack is the conversion of the blue lead into a basic acetate of lead, which takes place in two stages of action.

First:—The volatized acetic acid acts on the lead metal, forming a normal acetate of lead. Thus:

Lead and acetic acid, or, normal acetate of lead.

Second:—This normal acetate of lead, under the influence of heat and in the presence of water or steam, takes up this water, but is at the same time split into a basic acetate of lead and free acetic acid. Thus we have, then:

Normal acetate of lead and water, or, basic acetate of lead and free acetic acid.

This free acetic acid is ready to attack a further quantity of metallic lead.

The basic acetate of lead takes up very readily the carbonic acid evolved by the fermenting tan. The carbonic acid taking the place of the acetic acid in the basic acetate of lead, forming thus a basic carbonate of lead, or White Lead, sets the acetic acid free, and this acetic acid is then also ready again to attack more blue lead. Thus we have:

Basic acetate of lead and carbonic acid, or, basic carbonate of lead (White Lead) free acetic acid.

It attacks the blue lead, just as in the start, forming the normal lead acetate, which is then again changed into a basic acetate and then into White Lead also, so that a continuous cycle of changes and transformations take place; the acetic acid being taken up by the "blue lead" and liberated again by the formations of basic acetate of lead and White Lead, both as we know evolved by the heat of the fermenting tan.

As the "blue lead" in the corrosion process takes up water and carbonic acid, forming thus, White Lead, and becomes as such more bulky in form, so is naturally the yield of White Lead larger than the corresponding amount of lead metal placed into the stacks. As a rule nearly all the "blue lead" is converted into White Lead; one ton of lead producing about one and one-fourth tons of White Lead, or an increase of about twenty-five per cent, the amount varying from time to time according to the degree of perfection with which the corrosion has proceeded.

The great fault of the Dutch process is the great length of time required, 10 to 12 weeks, the great amount of capital it takes to construct a stack of lead and the loss of interest on the capital invested while the lead is undergoing the corrosion process; furthermore, although the modern Dutch process is almost perfect in regard to construction and working, there is always a certain risk, owing to some defect of producing a useless and imperfectly corroded lead which has to be sent back to the melting furnace and again be reduced to "blue lead," or which is used for the manufacturing of orange lead, the orange mineral of commerce. It is, therefore, no wonder that inventors have turned their attention to devising other simpler and quicker methods of producing White Lead, methods which are claimed to be free from all defects and drawbacks of the Dutch process. So far, however, with the exception of one or two, all these new methods have proven to be complete failures, with sometimes disastrous financial results, while the old Dutch process goes on smiling and profitably wherever it is carried on. There have been many scientific processes which give the same results as to the article produced being good and equal in quality to the Dutch-process-lead, but which have not paid either the inventors or the manufacturers adopting same. I mention only the various methods and processes which suggest the manufacturing of White Lead by electrolysis.

To discuss all these methods and other processes is hardly necessary and would take too much space and time. I shall, therefore, explain and discuss only a few of them, that is, the so-called "Chamber Process," precipitation process, and especially in the first line, the "American Carter" process.

The Carter process employs the same principal as the Dutch, for that is absolutely necessary, White Lead being made by chemical action, as already indicated; but the materials used for the corrosion of lead are handled in a more modern way, and the corrosion itself is carried out in a more scientific manner. The idea of using the lead metal in the form of perforated discs or buckles, instead of pigs or bullion, in order to expose more surface to the corrosive agents, is carried still further, in fact to perfection in the Carter process by atomizing the lead metal. Again the idea in using the spent tan in preference to stable manure for the purpose of generating heat and carbonic acid gas is carried to a further degree of perfection by burning coke for that purpose, the gas being thoroughly cleansed and purified before it is utilized in connection with steam or water and acetic acid.

Like the Dutch process, the Carter process may be subdivided also into three stages of operations.

TO BE CONTINUED

Note.

Salesmen are reminded to renew their letters of introduction to the mercantile agencys—R. G. Dunn & Co., and The Bradstreet Co.

Thoughts

PUBLISHED WEEKLY BY THE ACME WHITE LEAD AND COLOR WORKS, DETROIT, MICH.

Devoted to Matters of Interest to Our Representatives.

VOL. I. DETROIT, MICHIGAN, DECEMBER 30, 1899. NO. 16.

Paint and Its Solid Constituents—The Pigments.

BY JOHN COLLET.

(Continued from last week.)

The first step is to atomize the pig-lead as it is received from the smelting and refining works, which is done by melting the lead in a large kettle, allowing the melted lead to flow therefrom through a proper apparatus, the principal of which is a fine passage or slot or perforated plate through which the melted lead passes, after which it is blown by superheated steam at a high pressure as a finely, partly oxidized and hydrated lead into brick chambers. The blowing system is on the principal of the ordinary nasal or throat spray. The lead is, in fact, so fine that it resembles ground graphite, or, as the degree of oxidation may be, powdered litharge, and that sometimes, especially as it was the case when the Carter process was new and not in such a state of perfection as it is now, this finely divided lead oxidized so rapidly when exposed to the air that combustion or explosions took place, resulting in a total loss of the powdered metal.

This finely divided lead is charged in quantities of 300 to 500 pounds into slowly revolving cylinders about 5 to 7 feet in diameter and 8 to 12 feet long. These cylinders revolve continually day and night, the lead charged therein assumes a position along the cylinders on the side which is turned up, the powdered lead as it reaches a certain height overturns and falls to the bottom of the cylinder, undergoing thus a perfect mixing and overturning.

Into the ends of these cylinders, at the center, through a special arrangement, the carbonic acid gas is admitted. The gas is generated, as stated, by the combustion of coke, and is drawn by means of an exhaust fan through a purifying chamber, in which fine particles of coal and other gases are retained, and hence to the revolving cylinders. The gas as it enters the corroding cylinders is kept at a uniform temperature, such as experience has shown to produce the best finished product.

A very diluted acetic acid, more diluted than that used in the Dutch process, and water or steam, are also sprayed into the corroding cylinders, the lead being at the same time continually agitated. Its entire surface is thus exposed to the combined and continual action of the acetic acid vapors, water and carbonic acid.

The time required for the corrosion is 7 to 9 days, which is indeed a great advantage compared with the length of time (say 100 days) of the Dutch process, and another obvious advantage of the Carter process is the fact that the lead can be examined at any stage of corrosion without interfering with the chemical action.

The temperature in the corroding cylinders is about 140 degrees until the lead is corroded, after which it cools off and becomes cold by itself, which cooling indicates then the end of the chemical actions, that is the conversion of the lead into White Lead.

The corrosion is almost perfect, being very seldom below 95 per cent. the remaining uncorroded lead is then easily separated from the White Lead.

As the lead is charged as an amonphous powder into the cylinders, and continues during the process of corrosion as a powder, so is the product a powder also and is finished as such. This fine White Lead powder, however, is moistened when still in the cylinders to form into balls, varying from the size of a buckshot to that of a small marble. This is done to prevent the dust which would be given off if the product was handled in a dry state.

The lead as taken from the corroding cylinders is carried to the washing machines, which consist of rapidly revolving pronged shafts inside a cylinder or trough, into which the lead is put with a large quantity of water. The water holds the lead in suspension, flowing from the machine like milk into a series of revolving reels or screens covered with fine mesh brass wire cloth. That which passes through flows into the first of a series of vats. The tailings from the screens, consisting of blue lead and partly corroded lead, are used for making red lead, orange mineral and litharge. That which passes through the screen on to the first vat of battery of tubs, as stated, is allowed to flow from one tub into another, and so on, being, however, constantly agitated and more water added, and by this process it is thoroughly washed.

It is then pumped into the settling tanks and from there run on steam heated copper pans and dried, and handled then like the finished product of the Dutch process.

The Carter process, which was introduced into America in 1886, is operated in Omaha and Chicago with a capacity of 30,000 tons per year.

TO BE CONTINUED

This is what *The Detroit Free Press* says of our anniversary reception:

EMPLOYEES BANQUETED

ACME WHITE LEAD AND COLOR WORKS, THE HOSTS.

William Richards, Jacob Heinz and John Collet, the Prize Winners.

Last evening at Strassburg's Academy the Acme White Lead & Color Works tendered its annual reception to the employes and their friends. Fully 300 ladies and gentlemen were present and souvenir programs, the covers of which were made of Japanese wood, were presented to each of the guests.

The early part of the evening was devoted to dancing until everyone was called to the banquet hall, where an enticing lunch was spread. Rev. Samuel S. Marquis delivered the invocation, and then formality was dispensed with until the good things had been disposed of. A program of short talks had been arranged and the position of toastmaster fell to G. B. Pulfer, accountant for the company. He introduced President W. L. Davies, who had the pleasant task of welcoming the guests. Rev. S. S. Marquis talked on "Wanted, a Higher Standard Than Duty," and Secretary Thomas Neal followed with a personal chat regarding the factory and the employes. S. H. Hart, the oldest representative of the company, spoke of its early days, and A. M. Woodward extended the greeting of the traveling men. A recitation entitled "The Prod' Son" was given by A. St. George Dougall.

Every year the firm gives three prizes consisting of $25, $15 and $10 in gold to the three employes who advance the most valuable suggestion during the year, and everyone present was on edge to learn who the winners were. The first prize fell to William Richards for suggesting a method for the saving of what has been hitherto a waste product in connection with the dry color process. Jacob Heinz won the second prize by suggesting a mechanical method for the oiling of machinery, and the third prize fell to John Collet, who presented a valuable suggestion in connection with the educational system that has been established for the employes.

A cake walk followed and Finney's orchestra again took up the dancing program, which continued until an early hour.