

STIMSON, VALENTINE & CO.

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VISIT TO MESSRS. STIMSON, VALENTINE, & CO.'S VARNISH ESTABLISHMENT.

SIR,--About two years since I received a polite invitation to visit the well-known factory of Stimson, Valentine & Co. of this [New York City] city--the largest varnish-manufacturing establishment in New England, and there to witness the process of producing an article that had for years been familiar to me, but of the "*modus operandi*" of whose manufacture I had always been ignorant.

Having been negligent of the first invitation, it had passed from my mind, until a few weeks since; I received a similar compliment and availed myself of the privilege thus kindly extended. The visit proved so entertaining and instructive, that I concluded to furnish you with a brief outline of it. Should there be anything in it you may deem worthy to place before your readers, it is at your pleasure.

The factory is situated at Riverside, Brighton, on the banks of Charles river, about three miles from Boston. Its outward appearance, like that of other large varnish establishments, is not at all attractive to the beholder. There is nothing in the exterior construction of the building which indicates that there is within, that adaptation and perfection of arrangement so requisite to carry on with success so complicated a business as varnish-making; but for completeness of finish, and the perfection of those fixtures and utensils necessary and peculiar to this business, this factory is not surpassed by any other establishment in this country. The buildings, four in number, are of brick, one story high, and each having its specific use. There are the store-rooms, where all stock is kept before being manufactured; the gum-room, melting-room, and a large room where all the better qualities of varnish are refined after being made; this room is admirably fitted up, is kept free from dirt and dust, and at a uniform temperature, which has a wonderful effect upon new-made varnishes. It contains 30 or 40 neatly painted cans; each, holding about 300 gallons, being numbered and kept for its particular quality of varnish. There are several large copper kettles in different parts of the premises, each one for its own particular use, and they are all brought into requisition as the stock upon hand needs replenishing.

This firm is fortunate in having secured the services of a gentleman (Mr. John Babcock) whose ability as a practical manufacturer is evinced by the high esteem in which his varnishes have always been held by all who have used them. Mr. B. had seven years' experience in the largest varnish-making establishment in Newark, New Jersey, he has been about four years connected with this firm, and his reputation as a skillful and successful maker is too well known to need any comments from me. I was kindly shown through the, various departments, and the different and peculiar ways of manufacturing different kinds of varnish were commented upon.

It will not be expected of me to give a detailed account, and go through the entire process of manufacturing varnish with that minuteness I could wish. My space will not permit more than a few general remarks upon the various qualities of varnish, and of what they are composed.

The principal ingredients used are gum copal, linseed oil, and spirits of turpentine: these articles form the bulk of all varnishes; but in addition to these, the following are a few of the many other ingredients used to obtain the various kinds wanted, viz.: sandarach, shellac, mastic, Venice turpentine, mastic in tears, dried copperas, white copperas, litharge, sugar of lead, alcohol, gum aurum, amber, &c., &c.; but the most prominent of all is the gum copal. This article exudes spontaneously from two trees, the *Rhus Copallinum* and the *Eleocarpus Copalisferus*, the first of which grows in South America, the latter in the East Indies. A third species of copal-tree grows on the coast of Guinea.

It is found in lumps of various sizes and of different shades of color, from the palest green-yellow to darkest brown, deposited in earth and sand. Many think that the trees from which it comes have become extinct; while others think differently. In those countries where but few white men have penetrated, it is often found buried in earth where not a vestige of trees having been in existence hundreds, perhaps thousands, of years since; and, having decayed and passed away, the matter they emitted in their youth and vigor lies buried around the roots, estimated to be thousands of years old. It is collected in this state, and shipped to this country. The greater part of it is brought to Salem, a few miles from Boston, where it undergoes the process of cleaning and assorting. The three principal kinds are called Zanzibar, Benguela, and Angola, taking their names from the different coasts they are imported from. Each of these different kinds is assorted into some five to ten grades, each according to brilliancy, color, purity, and size of the pieces; in this state it is sold to the merchants and manufacturers of Boston and other places. The surplus is exported to London, some of it to be returned to head quarters in a manufactured state. It is worth from 12 to 60 cents per pound, and it is the quality of the material used that regulates the price of the varnish. The poorer the quality of the stock used, the cheaper the varnish; so the reader will observe that it is no saving to buy varnish at twenty-five cents less per gallon, for the difference in quality may be four times that sum.

Those ingredients put together at the proper time are boiled, stirred, and go through all the complicated forms and processes requisite, till the desired results are obtained; it is then taken from the coppers and deposited in the cans in the refining-room, remains there several months, is drawn off, and sent to the warehouse in the city, where it undergoes another refining process, and then is ready for sale. As far as Messrs. Stimson, Valentine & Co.'s factory is concerned, the facilities they have at command make it a model establishment, and enable them to compete successfully with all engaged in the business. They can make three hundred gallons per day, and their system of manufacturing is so perfect in all its branches that a uniform quality is a certain result; a *desideratum* of no small importance to both makers and consumers. The weight and measurement of every particle of stock used is kept account of, and each day's work kept entirely by itself. But a few words about the store.

Messrs. Stimson, Valentine & Co.'s store, No. 36 India street, Boston, is one of those mammoth establishments that would do honor to any city in the world; and for such buildings American cities are becoming famous all over Europe, as they as far surpass the conventional ideas of the old school of builders, as the energy and progressive perseverance of the people of Yankeedom surpass the old fogyism of the last generation. The building is seven stories high. The ground floor, covering nearly one fourth of an acre, is occupied by the office, and all the heavier materials usually found in a paint-store, embracing a large stock of white lead and zinc, oils, turpentine, colors, &c.

The second story is exclusively used as the varnish-room, and is well worth a visit by all who wish to get posted on varnish, and who are not suited with the article they are using. The facilities this firm have, and the satisfactory explanations which they give the visitor of their mode of doing business, are convincing proofs to the minds of all who call and see for themselves. All varnishmakers know that the greatest obstacles they have to contend against are the whims and prejudice; of painters. It is a common occurrence for one painter to reject a sample of varnish as worthless, and another painter to prize the same article as superior; but this firm have organized their business on such good systematic foundations, that they are enabled to suit the most fastidious tastes. This I can willingly bear testimony to myself. The first sample of their varnish I used, did not at all meet my wishes, I had many more objections, which I had only

to mention to them, and the next lot was every thing I could wish for; the same has now been in wear two years, and given the best of satisfaction both to myself and the owners of the vehicles it was used upon. In making varnish for undercoats the greatest object to be obtained is to have it rub well, flow freely, and be of a color that will do no harm to whatever it may be laid upon. This firm are fully alive to the importance of these points, and flatter themselves that they have succeeded in bringing their varnish for undercoats to this satisfactory state of perfection. A fact I can fully substantiate by my own experience. The system by which they govern and know the quality of their varnishes, is this: the date is taken when it is made, when brought to store, the number of gallons, number of the lot, price, quantity, quality, &c. of every ingredient used, which is all neatly recorded on a card attached to each can; those I noticed read thus: Can 8, lot 26 ; 265 gallons made March 12th, '58; transferred to store Aug. 21st, '59. Can 50, lot 268; 270 gallons made October 3d, '59; transferred to store February 1st, '60. And upon referring to the book kept for the purpose, the firm are enabled to see at a glance the ingredients used, and the alterations required to make the article acceptable, and in conformity with the wishes of many and every customer, whatever may be their opinions upon quality, and however hard they may be to please. The Messrs. Stimson, Valentine & Co. manufacture about ten different grades of coach-varnish; and to contain and keep up this stock they have from five to eight cans of each kind, averaging from two to three hundred gallons each, these are drawn off in regular succession as sold; and as fast as one is empty it is replenished, and stands until the others are drawn off. Their catalogue contains twenty-two other different kinds of varnish, comprising every variety known to the trade, and suitable for every, purpose and use that varnishes can be applied to.

The next story is mostly used as a refinery of bees-wax, which forms a large and important branch of their business. Wax from all parts of the world, even the newly opened country of Japan, may here be seen in its crude state, or manufactured into the various neat and tasteful forms in which it is sent into the market for sale.

The fourth floor is occupied by one of J. C. Hoadley's, Lawrence, Massachusetts, Portable Steam Engines. The same took the prize of the large gold medal at the fair of the American Institute, lately held in New York; it is a model machine, and shows the enterprising spirit in which the business of this firm is carried on. The benefits that accrue by having such a convenience as this machine upon the premises cannot be over-estimated. The whole store is heated by steam; and this is invaluable to the quality of the varnish. None but the initiated can properly appreciate the importance of keeping varnish at a uniform temperature; for when allowed to chill, and grow thick and heavy requiring heat before being used, it becomes tough and ropy, which is at once ascribed to the bad quality or the inability of the makers to manufacture good varnish; but by the aid of steam the varnish-room of this firm is kept at a uniform temperature all the time from month to month.

The engine also turns several mills for grinding lead, zinc, pumice-stone, &c., &c., and works one of Adam's Patent Elevators, by which cases of gum, casks of lead, oil, and other packages of greater or less weight are taken from the cellar to the seventh floor with dispatch.

The fifth story is used as a depot for whole packages of paints and colors ; and the sixth, exclusively for gums of all grades and qualities.

The office is well worthy of a minute inspection, as it contains samples of every article manufactured by them. Samples of varnish may be seen on panels that have been exposed and tested in various ways. This firm take great pains to manufacture a good-drying, durable coach Japan, and their specimens are free of that fat, thick substance which is so much complained of by a majority of painters. To have good Japan in a carriage paint-shop is equally as desirable as to have good varnish.

The Messrs. Stimson, Valentine & Co. manufacture an imitation English varnish; and they have the good sense not to warrant it as durable as the true English itself; but the price (four dollars per gallon) is only about two thirds the price of the English varnish. I have remarked in another part of this magazine that the poorest article of English carriage-varnish sells for sixteen shillings (four dollars) per gallon, and I have no hesitation to assert that this varnish is far superior to any English carriage-varnish sold at a similar price. This varnish has an excellent body to it, and is warranted to give good satisfaction with reasonable durability.

This firm do a large business in the common grades of varnish; their "railroad-car varnish" is used on many of the great railroads, and by many is preferred to the best of English. Their piano polishing and flowing varnishes are extensively used all over the country. Their supply of stock and tools used by both house and carriage painters is equal in quantity and quality to any other house in New England. An abundance of testimonials are shown to the visitor, all speaking highly of the quality of their varnishes, and a majority of these are from men that occupy the principal stations in the most noted carriage-shops of Boston, New Haven, and other places all over New England. This firm have every advantage over competition--the senior member having been engaged in the business nearly thirty years, and until they lately moved had been located in one store twenty-seven years, and that the oldest in New England in the trade; they are now reaping the fruits of a long and faithful service devoted to the interests and advantage of their numerous patrons. They deserve all their rewards; for they have spent a fortune in bringing their establishment to its present perfection, and the testimonials by which a generous public have rewarded and appreciated their exertions, must be very flattering to them.

Their medals and diplomas which they have received from mechanical, art, and other scientific institutions are some recompense for their past endeavors; but "Excelsior" is still their motto : their only ambition appears to be to make their establishment second to none in the country; and if a well-arranged factory, a perfect store, thirty years' practical experience, ample capital, persevering energy and liberally, and a strict attention to all business transacted by or through them, make a perfect establishment,--then Stimson, Valentine & Co. may certainly claim pre-eminence over most other houses engaged in their line of business.

My visit was so instructive to myself, that I shall take the liberty of inviting you, Mr. Editor, or any of your readers interested in this branch of our craft, to take the same pains that I did, and view the facilities this firm have for accomplishing all they undertake. For the kind invitation and the courtesies extended upon the occasion, they will please accept the thanks of their, and, Mr. Editor,

Your, obedient servant,

E. E.