

Metropolitan Life Insurance Bldg
New York City
Architects, N. LeBrun & Sons, New York

The Spectrum

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HOW TO PAINT STRUCTURAL STEEL

THE ever widening use of structural steel in modern building has led to great research and study on the part of architects and paint manufacturers for durable metal protection

The past ten years have evolved many theories and the employment of various pigments for this purpose, and while the paint itself is the highest part of the problem of metal protection, the *proper* application has, too, an important place. For even though the time may never come when all those interested will think alike on the paint to be used, it has been generally agreed that, whatever the paint, the method of application should be the same. It remains for the architect to assist the manufacturer in ob-

taining a durable protection by specifying the proper method of application.

We have given a great deal of study to this part of the problem of metal protection to assist in the work of our laboratories—to get every good quality out of the standard products we manufacture for this purpose. The following specifications were made for our Pure Acheson Graphite Paint and cover every part of the work concisely. Use them in the specifications you write, hereafter, and insist on their being carried out to the letter:

SPECIFICATIONS FOR PAINTING STEEL WORK.

All metal work shall be thoroughly freed of all mill scale, rust, dirt, grease or other extraneous substance by brushes, sand blast, scrapers, benzine, etc., and where there is more than fine surface rust, such parts shall first be subjected to the flame of a torch until the oxide has been entirely converted.

After the cleaning has been thoroughly done, the work shall not be allowed to stand but shall immediately be given a shop prime coat of Pure Acheson Graphite Paint which shall be thoroughly stirred in the package until of uniform consistency; shall be used as it comes from the can and shall be applied in a thoroughly first class and workmanlike manner.

No larger than a No. 6-0 round bristle brush shall be used. The use of flat brushes is not sanctioned under these specifications. Painting with machines is positively forbidden under these specifications.

All paint must be applied in a smooth and even coat and care taken to see that all joints and crevices are properly coated. In compound girder and riveted work, all surfaces which will be joined, also all drilled holes, permanent bolts, etc., shall first be primed with the paint called for in these specifications and such prime coat shall be allowed to become hard before the several parts are joined.

All abrasion of the prime coat due to loading, handling and erecting shall be carefully touched, be stand at least four days, and allowed to become thoroughly dry before the field coats shall be applied, and should any rust have formed at such points of abrasion it shall be thoroughly removed before the painting is done.

After erection, the metal work shall be given two three coats would be much better) field coats of Pure Acheson Graphite Paint which shall be applied as it comes from the can with brushes and in manner demanded for prime coat. Each coat shall be allowed to stand at least four days or until perfectly dry before a subsequent coat is applied.

All deep recesses and crevices which will admit or retain water shall be either filled with Portland Cement or *Sherwin-Williams* Heavy Crevice Paint and such cement or paint shall be allowed to become thoroughly dry before either of the field coats are applied.

Parts which are joined so close as to prevent thorough coating by means of the brushes specified shall be primed with a rag or suitable smaller brush. Prime coats shall be applied under cover.

No painting will be permitted on damp, wet or frosty surfaces nor in a temperature lower than 32 degrees Fahrenheit, nor shall any painting be done on

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board cars except touching up abrasion of the prime coat due to handling and loading.

Finishing color or colors of the architect's selection shall be applied in manner demanded for the several preceding coats. All material and work shall be strictly according to specifications, and every facility shall be afforded the architect or his authorized inspector to satisfy themselves with regard to the same.

Any work done under these specifications which does *not* conform to them shall be cleaned and repainted at the expense of the contractor.

The use of artificial, so-called boiled linseed oils, patent oils, japans, driers and naphtha for painting under these specifications is prohibited.

All paints called for under these specifications shall be delivered in the shop and on the job in original packages and no painting shall be begun by the contractors except in the presence of the authorized inspector, or by written permission of authority.

A bird in the hand is worth two in the bush. *Sherwin-Williams* Paints specified alone are worth two doubtful ones.

The eye of the superintendent can see that the goods are used, but it takes the eye of a client to see how they last.

WE haven't fallen into the practices of yellow journalism in playing up a life insurance building as a frontispiece this month. Even if there were no investigations going on and even if one T. Lawson were not looming large on the horizon of insurance affairs, we would still have the Metropolitan Life Building up in front, for it is a conspicuous example of good judgement in the choice of paint and varnish.

When the big additions were erected more than doubling the building in size, *The Sherwin-Williams* Durable Wood Finish was used for interior varnishing and *The Sherwin-Williams* Metal Protective Paints were applied to all steel work, shop and field coats.

The building is located at Madison Ave. 23rd St. and Fourth Ave., New York City facing Madison Square, with Dr. Parkhurst's famous church just to the north of it.

The style of the Metropolitan's home is early Italian Renaissance, consistently carried out. The facades are of purely white marble, beautifully carved. Interior finishings are in keeping, the company's offices being finished in San Domingo mahogany with elaborate decorative effects in marble, onyx and bronze.

The main office is 30 feet in height, and is

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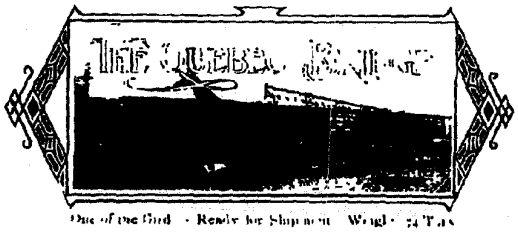
surrounded at the mezzanine floor with a tall and graceful gallery. The entire effect combines beauty and stability in an impressive and imposing manner.

Architects, N. LeBrun & Sons, New York; Contractors, V. J. Hedden & Sons, New York. Structural steel from the Jackson Architectural Iron Works.

A poor painter in one hour can negative the results we have spent a lifetime in perfecting.

Many an architect learns that of a truth "the last shall be first" when he finds a cheap varnish finish brings the client's first kick.

The easiest way for us to express the extent of our business is to say that we make everything that's good and needful in paints, varnishes and stains, except artists' tube colors.



One of the first Ready for Shipment Weight 74 Tons

THE steel bridge now under construction across the St. Lawrence River at Quebec is in many respects the greatest structure of its kind in the world. Its total length is 3388 feet, with a width of 75 feet to accommodate a double track railroad, double track trolley, highway for wagon and vehicle traffic and two sidewalks. The bridge is being built by the Phoenix Bridge Co. for the Quebec Bridge and Railway Co. and is at a point six miles above the city of Quebec and 165 miles below Montreal. This bridge will form an invaluable link between three of the important railway systems on the north side, and an equal number on the south. More than 35,000 tons of steel will be required and all of this will be painted with *Sherwin-Williams* Metal Protective Paints.

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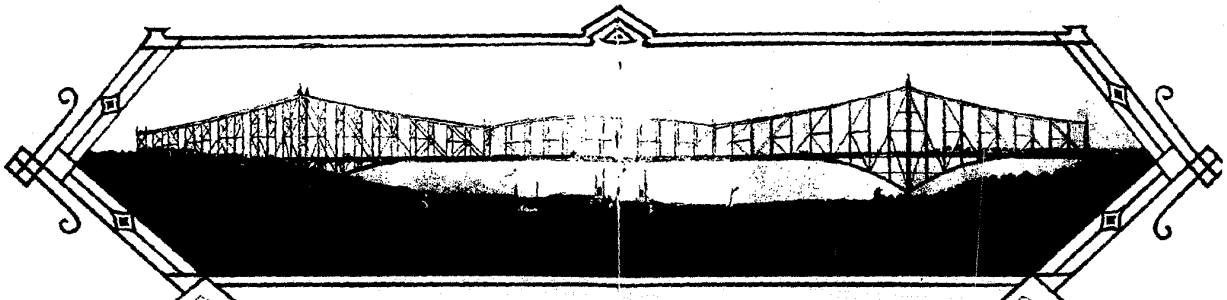

The Quebec Bridge. Painted with *Sherwin-Williams* Metal Protective Paints. Illustration courtesy of *The Scientific American*.

THE LARGEST SINGLE SPAN IN THE WORLD.

The most remarkable feature of this great bridge is the single span, 1800 feet in length, crossing the St. Lawrence River. The nearest approach to this in size is the Forth Bridge in Scotland, 1710 feet; the Brooklyn Bridge, 1680 feet, and the East River Bridge New York, 1600 feet in length. The ship clearway is 150 feet above highest tide and the height of the cantilever towers 360 feet above the river. The structure consists of two giant cantilevers carrying a hugh central span. It is approached by two deck spans, each 214 feet in length, extending from the shore to two massive anchor piers, to which the anchor arms are bolted down and which serve to counterbalance the weight of the central suspended span. The depth of the waterway and the necessity for keeping the river free from obstructions made this type of bridge necessary. Many of the parts of the bridge are of enormous size and weight and exceed anything ever planned and constructed. After comparative tests of a number of metal paints, *The Sherwin-Williams* Metal Protective Paints were specified and used.

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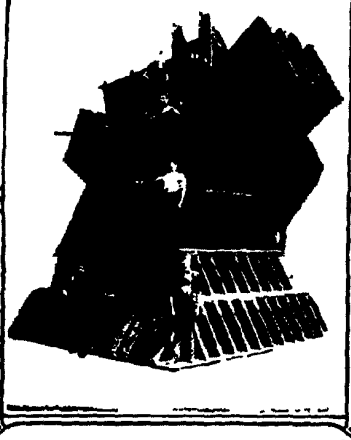

One of the four pedestals and main shoes which carry the entire weight of the bridge weighs 278 tons. Illustration courtesy of *The Scientific American*.

TO THOSE WHO DIDN'T THINK MUCH OF VOL. I, No. 1.

A FEW of those good architects whose opinion we value have not as yet requested us to add their names to THE SPECTRUM mailing list. Probably they didn't feel sufficiently inspired by the first number, and we can't blame them. That first number, to be perfectly frank, didn't look very good to any of us who made it, from the printer's devil down. It sagged in the middle when we pulled it out of the oven and most of the cake was dough.

Since then we've been reading the lives of successful men who labored under great tribulation and discouragement in the days of their first effort, but eventually became railway magnates, insurance experts, bank presidents and architects—and we've taken heart again.

Therefore, with less confidence, but no less desire, we are sending this second number to some who didn't ask for it, and have even included a prepaid post card on which they may express a wish to have a copy monthly.

We'll all of us be standing 'round, first on one foot then on the other, until all the mails are in and we know what you're going to do about it.



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THE PAINT MAN TO THE RESCUE.



THE Architect, the Builder, the Man-who-pays-the-bill, and the Scientist aren't the only ones interested in the recent advances in the price of lumber. There's the Paint Man, too.

The Scientist has figured it all out that in so many years the timber lands will be exhausted.

The Architect and the Builder have been trying to figure how they can give the Man-who-pays-the-bill all he wants in style at the right cost.

The Paint Man in our laboratories has been most practical of all for he has solved the problem by boosting Georgia pine and other woods once despised for interior woodwork into the front rank of desirable woods. He has done it by producing *Handcraft Stains*.

True, there were stains on the market before *Handcraft* appeared, but as some of you Architects know, they had an abundance of faults. Our Paint Man was far-sighted enough not to rush in at the first demand that showed itself. He could easily have given you a line of stains just as good as any But we didn't like to risk our reputation on them.

So the Paint Man worked and studied

He had the laboratories and testing rooms all by the *ears* for months. Every once in while the laboratory would think they had hit it and then the testing room would say no.

Those were strenuous days for the Paint Man, with his ideals set high and hundreds of Achitects hanging 'round ready to take any old thing that would convert Georgia pine into wood fit for a king's palace.

"Be patient," said the Paint Man, "you don't want something that will look pretty for a while and then be a disappointment for the rest of life. You can stain in haste and repent at leisure if you want to, but we suggest you wait till I've gone to the bottom of this stain proposition."

And now those Architects who waited are glad they did, for *Handcraft Stains* as the Paint Man finally produced them are in a class by themselves. They are beautiful in tone permanent, don't raise the grain of the wood, and can be relied upon to do just what you hoped you could some day do to obtain the Weathered Oak, Fumed Oak, and other fine effects on inexpensive woods.

If you are interested in this class of goods we'll be glad to send you panels of *Handcraft Stains* on Georgia pine, Cypress, et cetera.

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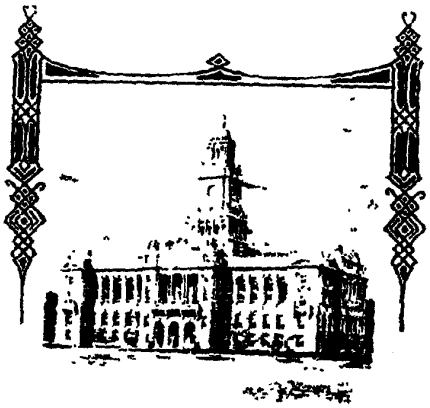

Polk County Court House
Des Moines, Iowa
Architects, Proudfoot & Bird, Des Moines

All steel work painted with Sherwin-Williams Metal Protective Paint.

OFFICE BOYS AS ARCHITECTS BUILD 'EM.

Sherwin-Williams

IT is evident our architect friends know how to design Office Boys quite as well as buildings. That's the impression we get from reading the post cards returned from last month's SPECTRUM, wherein—if you remember—we urged that the Office Boys be cut off from all chance of "swipin'" THE SPECTRUM by having it mailed to the home address.

We didn't know the kind of Office Boys we had to deal with. Most of them are under complete subjection, as witness a few of the choice remarks selected from the post cards

"Office boys are broken in."

"Office boy duly intimidated."

"The office boy is not at all curious."

"I'd kill the kid if he swiped my mail."

"My office boy has no artistic temperament."

"My office boy would like to see the cover any way."

"Office boy like Caesar's wife above suspicion."

"I got up before the office boy and filled out this card."

"I have a model office and it will come to my hands without fail."

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"Office boy is a darky who cannot read, so THE SPECTRUM is O. K."

"How wrong of you to accuse our office cherub of being imbibed with artistic temperament."

"The office boy is *right* and says *we* and *our* in referring to the business, so it's safe to send 'em to the office—thanks!"



If our keen business experience hadn't proved to us that the best goods sell best we could save ourselves lots of trouble and greatly reduce the cost of manufacturing.

There's much more in the making of good paint and varnish than most consumers give us credit for. If you doubt it, have a talk with some one of the eighteen chemists on our pay roll.

Sherwin - Williams Preservative Shingle Stains keep the roof over the head. Preserve and beautify shingles. Made with Creosote, the true wood preservative. Samples for you if you'll speak out in meeting.

Justice may be administered from a hovel as well as a palace, but Iowans it is evident, prefer the gilt-edged variety, for the new Polk County Court House, an illustration of which we show elsewhere in this issue, will be the finest in Iowa and the middle west. It is to be completed this year, occupying an entire square in the heart of DesMoines. It is four stories in height with a clock tower 240 feet from the ground. The building has 114 rooms, 28 being situated in the basement for light, power and water machinery. Gray stone is the material of construction, handsomely designed and cut. Six court rooms, two stories in height with dome ceilings are provided. It is estimated that the structure will cost $700,000 when completed, exclusive of furnishings.

Sherwin-Williams Metal Paints were used on all steel work throughout the building.



If "protective paints for metal surfaces" is a subject that's grown rusty to you, brush the scales from it now and apply Pure Acheson Graphite Paint practically in your business. Results will make your interest grow in this vital subject.



Once a wee little house of S W P
Caught the envious eye of the elements three.
Said the Wind, "I will blow";
Said the Sun, "I will shine";
Said the Rain, "If you please, leave the matter to me."

So the Wind it blew hard and the Sun it beat hot,
And the Rain Man quite emptied his sprinkling pot
"What's the use!" said the Rain;
"What's the use!" said the Sun;
"What's the use!" said the third from the ground where he sat.

Now, *the moral is plain. If your house you would save*
Of S. W. P.—let the elements rave.

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