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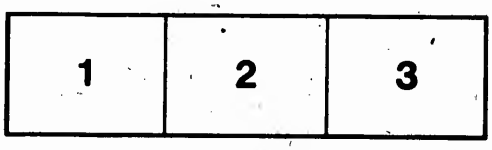

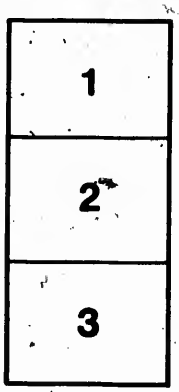

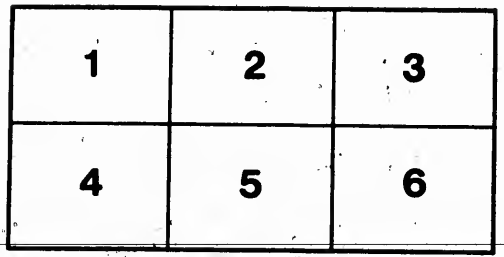

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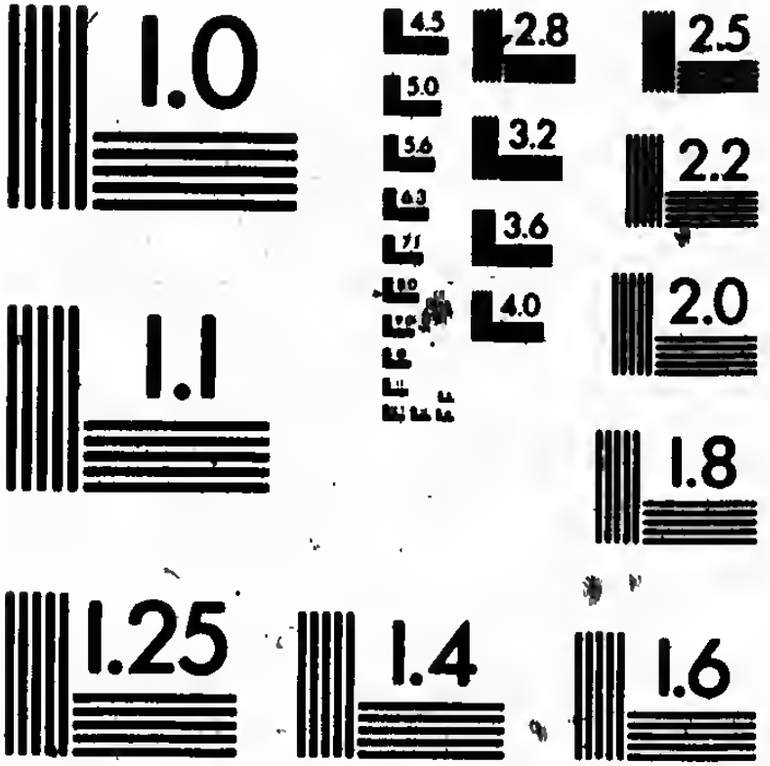

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MALLEABLE

SHEET ZINC.

THE Subscriber calls the attention of the public to the superior malleable quality of the Sheet Zinc, which is now coming into general use, for the purposes of covering Roofs, Flats, Virandas, lining Cisterns. Troughs, Tanks, Vats, &c., and also for Rain Water Pipes, Eves, Gutters, Chimney Flues, Cowls, &c,. and may be used to advantage in all cases where lead and copper were formerly required. It needs only an acquaintance with its properties to ensure its general adoption. It surpasses in point of malleability lead or copper, and is more durable. The superiority of Zinc over tin plates is very considersble, as it is not only a great deal more durable, but when it oxides, instead of destroying the metal, it protects it from further injury ; and when broken up, which is not necessary for 50 years, it may be melted in any vessel and is then worth half the original cost, being in a fit state for mixing with copper to make brass. Tin being in plates of 14 inches by 10, and the Sheet Zinc of 7 ft. by 2ft. 8 inches, there is evidently a large saving in labour, as one jointure only will be necessary to be made, whilst in tin plates 40 would be required, and as 40 sheets of tin are required to be joined together to make the size of 2 sheets of Zinc, a great saving of metal will be effected by the difference of pieces lapped over in making those jointures.

The original Certificates from the French Government of the success in covering ships' bottoms with this Sheet Zinc, and at a saving of two-thirds when compared with the expense of copper, together with similar certificates of its advantages for the several purposes for which it is now recommended, may be seen at any time at the office of the subscriber. The comparative calculations can also be there seen and examined; they clearly prove that Sheet Zinc is at least 22 per cent. cheaper, exclusive of all other advantages over tin plates. Sufficient is imported for the covering of Few Houses, with spouts, nails, gutters, &c. It may be had by application to

J. C. REIFFENSTEIN.

Quebec, 25th May, 1837.

TESTIMONIALS AND CERTIFICATES

AS TO THE PROPER USE OF ZINC.

Sir,

The following is what I have to say in answer to the letter you have addressed to me.

My opinion on the durability of Zinc in Sheets, used as a covering is in your favor, but under condition, that the sheets must be thick enough, so that at the flattening the unclean and oxidated (rusty) parts, which soil the two large surfaces of the sheet, cannot come in contact, or approach too near to the centre, after having for the last time passed under the " flatter ;" in this state, the metal is really pure and homogeneous under the surfaces, and is only contaminated or oxidated (rust-eaten) on the outside. As to the grayish coating, which forms at last on the surface of the sheets of Zinc, exposed to the air, I consider all that Berzelius has said on the subject, as correct, and I think that we must attribute the durability of the sheets of Zinc, exposed to the air, to the hardness and insolubility of this kind of rust. I think that the same thing which happened to the Bronze of antiquity takes place here, the rust which forms on the surface becomes very solid, soon protects the remainder of the metal from any further oxidation (rusting), but I repeat it, that in order to derive any practical benefit from this quality, the Sheets of Zinc must be sufficiently thick, so that a sufficient thickness of pure metal may remain between the two layers of oxide (rust.)

I am, &c. &c. &c.

(Signed DARCET.

I, the undersigned, certify, that there exists to my knowledge in the house of Mr. Mosselman, "La Chaussée, d'Autin Street, No. 7," a building, which was covered with Zinc more than twenty-five years ago, and that the covering after having formed a light layer of grayish oxide, has been preserved in a perfect state to this day, without the superficial oxidation having made any further progress. According to this fact, and according to what has been observed as to the large buildings, covered with Zinc, which are to be found in different places, there is every reason to believe that the oxidation, which takes place immediately, on the surface of the Zinc, by the contact of the moist air, must have the effect of preserving the metal for a very long time.

Paris, 20th July, 1836.

(Signed) P. BERTHIER.

Professor of Chemistry at the Royal School of the Mines,
Member of the Academy of Sciences.

I the undersigned, Chief Architect of Civil Buildings attached to the Office of the Home Department, at Paris, certify, that for a long time I have made use of Zinc from the Manufactory of Mr. Mosselman, in a great number of public and private works, especially at the Museum of Natural History, where the covering of the Gallery of Mineralogy and Geology, containing a surface of about three thousand Metres, has been made with the greatest success, of small tiles of Zinc, groved.

I think that, of all the materials used for covering houses, Zinc is the most suitable, because it offers

two advantages, which are seldom found united, namely, *economy* and *solidity*.

Paris, the 20th June, 1836.

(Signed) CHS. ROHAULT.

Seen, to authenticate the signature of Mr. Rohault, Architect of the Works of the Museum of Natural History.

(Signed) EDMOND BLANC,
Master of Requests, Secretary General
for the Home Department.

6th July, 1836.

The same Certificate given by Mr. Lacornée, Architect, having superintended the construction of the "Hotel du Quai d'Orsay."

We, the Visiting Captains of Ships attached to the Tribunal of Commerce, by land and by sea, holding its Sessions at Havre, certify, that in vessels fastened with Iron bolts and nails and covered with Zinc, we have never observed any deterioration either in the Zinc sheathing or in the Iron nails or bolts, arising from the reciprocal action of one metal upon the other, and that even in the Zinc sheathing fastened with Iron nails, which were tinned, instead of Zinc nails, we have observed no oxidation which might be attributed to the contact of the two metals. We certify moreover, that in vessels fastened with Iron nails and bolts, and covered with Copper, although the contact be not direct, the Copper destroys the Iron in a few years.

Havre, the 30th July, 1836.

(Signed) *Philippe, Thomas, M. Cobert, Pre. Gremont, Griot* and *Jh. Rion.*

We, Mayor of the City of Havre, certify that the above six signatures, are really those of Messrs. Philippe, Thomas, Cobert, Gremont, Griot and Rion, Visiting Captains living in this Town, and that credence ought to be given thereunto.

Given in the City Hall of Havre, the 2d Aug. 1836.

(Signed) A. LEMAISTRE.

Seen, to authenticate the signature of Mr. A. Lemaistre, Mayor of Havre, affixed to the foregoing.

Havre, the 2d August, 1836.

Signature and Seal of the Sub-Prefect.

We, the undersigned, Merchant-owners, Captains and Builders of Ships, certify to whom it may concern, that a long, constant, and every day's experience has incontestably proved to us the following facts.

In Ships fastened with Iron bolts and nails, and sheathed with Zinc, no reciprocal and injurious action of the one metal upon the other has been observed, the Zinc covering or sheathing increases by no means the natural oxidation of the Iron, whether mastich and barred paper is put between the Zinc and the Iron, for instance at the Iron nails and bolts of the side planking, and of the keel, or whether these two metals are in immediate contact, as at the covering of the sternpost and the rudder and the Iron covering of these two pieces. But a great deal of Zinc sheathing is fastened with Iron nails, tinned, and even in that case we have observed no destructive reciprocal action between these nails and the sheets of Zinc which they fasten.

In Ships fastened with Iron bolts and nails, it is certain that the Iron by no means injures the durability of the Copper, which, on the contrary, it rather protects; but that the action of the Copper on the Iron is so destructive, that the Iron bolts and nails put

under the coat of Copper are oxidated, (rust-eaten) to a depth of several inches, and even of more than a foot in the inside of the planking and other pieces, and this takes place after an interval of two years at most, notwithstanding the application of tarred paper and mastich between the sheathing and the heads of the bolts and nails, and in such a manner that nails and of bolts from 6 to ten lines in diameter are sometimes reduced to from 1 to 3 lines, or disappear entirely, and that the Iron covering of the stern-post and rudder brought into immediate contact with the Copper sheathing becomes oxidated and unserviceable, after a passage of from two to three months.

These facts are so notorious, that not a single vessel is now built, intended to be copper-bottomed, without Copper nails and bolts from the keel upwards to six inches above the sheathing, and without covering the stern-post and rudder with copper. We have known no Iron-work on the stern-posts or rudders of vessels with copper-bottoms, except in cases where the copper having been broken in the course of the voyage, it has been found impossible to replace it otherwise than by Iron in the parts where they had put in.

Given in Duplicate, Havre, the 28th July, 1836.

(Signed) *August. Normand*, *Chaubert et Barbulée*, *Jourdan*, *Martin Lepage* and *Contour*, *Frères Vaquerie*, *Lamotte & Co.* *Asher, jr.* *Sassaut*, *Quesney* and *Bretel*, *A. Meys*, *F. Perquer* and *Sons*, *Desmont*, *Ed. Regdellet*, *J. Namidt*, *Ach. Hébert*, *J. Lacheur, jr.* and *Hermé*, *M. Cor*, *Palm & Co.* *Pve. Le Pierre*, the elder, *Laurent*, *Ln. Martel*, *Le Marchand*, *Vasse*, *P.C. Damblat & Co.* *H. Durosells & Co.* and *Dl. Ansel* and *Son*.

We, Mayor of the Town of Havre, certify hereby, that the persons who have affixed their signatures to the above, twenty-four in number, are all Merchant-owners and Captains of Vessels, or Shipbuilders, living in this town, and that credence ought to be given thereunto.

Given in the City Hall, Havre, the 2d Aug. 1836,
(Signed) A. LEMAISTRE.

Seen, to authenticate the signature of Mr. A. Lemaistre, Mayor of Havre.

Havre, the 2d August, 1836.

Seal and Signature of the Sub-Prefect.

The Burgomaster and Aldermen of the City of Brussels.

Agreeably to the request which has been addressed to them in the name of Mr. François Dominique Mosselman, and at the same time to do homage to truth, declare that the great Theatre Royal of the City of Brussels, was in 1820, covered with sheets of Zinc, from the Manufactory of Mr. Mosselman, which sheets were laid down by him, that this kind of covering has entirely answered its purpose, as since the said period no repairs have been requisite, except a very trifling one, which was occasioned by an accident; that after a late examination, it has been found that this covering is still in very good condition, and does not show any trace of defect or decay, that in fact, experience seems to point out, that, of all the materials used until now in the covering of buildings at Brussels, Zinc appears to be the most suitable.

In testimony whereof, we have given the present Certificate, for the information of whomsoever it may concern.

Given at the City Hall, Brussels, the 16th Aug. 1836.

(Signed) ROUPPE, Burgomaster,

By order of the Secretary,

(Signed). E. KOCKAERT,
Chief Clerk delegated.

Registered at Brussels, the 17th August, 1836. Vol. 21, fo. 99, Ro. Cl. 3, received 2 fs. 19 cent. adl. included.

(Signed) BIENVENU.

Certified to be true copies of the originals placed in my hands.

pr pre. F. D. MOSSELMAN,
Larrabue.
No. 7, Chaussé d'Autin Street.

Paris, 18th March, 1837.

My Dear Friend,

I herewith send the Certificate you requested from me, in your note of the 22d February last, which I hope will be sufficient for your purpose.

I join to the attestation it conveys, my own personal observation, made use of in building the Entrepôt at the Place des Marais, and I have ascertained that this sort of roof unites all the desirable qualities of solidity, durability and above all of economy. The timber work for Zinc roof may be much lighter and more simple than that required for any other sort of covering. That of the Entrepôt of which I have above spoken, is an example of what I state.

I have built stores of a single story, the frame-work of which has been intended for a Zinc roof, and the timber-work cost at least one-half less than the roof of any building to be covered with tiles or slates. This is an immense saving in labour, which has been attested by all the builders in Paris, who have readily adopted the application of this principle in all cases similar to that to which I refer. The building on the Quai D'Orsay, one of the most imposing of our time, the building of the Museum of Natural History, and a great number of private houses are covered with Zinc.

The preference which has been given in these instances to this material, over the system pursued up to this time, sufficiently establishes its superiority over all others.

I am, &c.

GRILLON,
Architect, Inspector General
of Civil Buildings.