

Despatches.

the sum granted by Parliament for the relief of the sufferers by the fires at *Quebec*, should be expended in the purchase of the requisite machinery and its conveyance to *Canada*. This gentleman has lately returned to the Province, and would be prepared to afford to Your Lordship any explanation which you might require on the subject.

Considering the importance of any measure which has a tendency to diminish the risk of fires in a country in which, as in *Canada*, wood is extensively used for the construction of dwelling houses, I think it right to bring these suggestions under Your Lordship's notice in case you should think them proper objects, either for expending upon them a part of the sum lately voted by Parliament for the relief of the sufferers by the fire at *Quebec*, or for making them the subject of an application to the Provincial Parliament.

I have &c.

(Signed,)

STANLEY.

Governor,

The Right Honourable

Lord METCALFE, G. C. B.

&c. &c. &c.

ADMIRALTY, SOMERSET HOUSE,
31st July, 1845.

My LORD,

It is not without considerable diffidence that I venture to intrude myself upon Your Lordship's attention, and indeed, I should not have done so but from the hope that the great importance of the subject, in a material point of view, will prove my best excuse for troubling you.

No one my Lord can have heard of the sad calamity which has on two occasions lately befallen the inhabitants of *Quebec*, by the conflagration of their City, without feeling desirous of preventing this from happening a third time; and this my Lord I have much satisfaction in informing you, can be done effectually, and at a comparatively small expense.

Circumstances connected with my public duties, forced upon my attention eight or nine years ago, the possibility of preventing dry rot in timber, and mildew in canvas, &c., in which I have most fully succeeded, and my method is now employed to a great extent in the Royal Dock Yards, &c., and by private gentlemen.

In pursuing my experiments I soon discovered that my preparation possessed also very valuable properties of another nature, when the composition was employed in a more concentrated form; in short, that it rendered wood, canvas, and even the finest muslin, incapable of receiving or sustaining flame; and thus either a ship, or a house, constructed of materials so impregnated, is made incapable of being burned by fire.

Having communicated this valuable property to the Lords Commissioners of the Admiralty, their Lordships were pleased, in March, 1844, to cause the most trying experiments to be made by the Officers of *Portsmouth Dock Yard*, and these having fully succeeded, orders were soon after issued, that all the Bulkheads of magazines of ships of war, and the other Bulkheads below, and also the Timber of all kinds, used in the vicinity of the fires in war steamers, should be prepared with the solution in question, and to effect this purpose, there are two powerful hydraulic machines at work in *Portsmouth* and *Chatham Dock Yards*, capable of impregnating eighteen loads of timber daily.

I fear I have already detained Your Lordship too long on this subject, but I was desirous of shewing you that it is no ephemeral matter I am endeavouring to bring under your notice, and I feel confident

that Lord *Haddington* and Admiral Sir *George Cockburn*, or the Board of Admiralty generally, will fully confirm all I have advanced on the subject, and I shall be ready to afford Your Lordship any further information you may desire on this important business, for it is not applicable to *Quebec* alone, but the most of our other Colonies, though more especially to those of *North America*, and to any place where wood is used.

In order to give Your Lordship some idea of the value of the preparation in question, I beg to send you some pieces of Wood sawed from a large Log prepared in *Portsmouth Dock Yard*, with the minimum quantity required for rendering it uninflammable, and also a piece of canvas, in the same state; by placing a portion of either in the flame of a candle or lamp, you will at once see the effect.

The accompanying Pamphlet will shew Your Lordship, how extensively and successfully it is used.

I have. &c.

(Signed,)

W. BURNETT,

Director General of the Medical
Department of the Navy.Right Honourable
Lord STANLEY.

(Copy.)

ADMIRALTY,
14th August, 1845.

Sir,

In reply to your letter of the 9th instant, with its enclosure from Sir *Wm. Burnett*, I am commanded by My Lords Commissioners of the Admiralty, to transmit to you for the information of Lord *Stanley* a copy of a Report from the Officers of *Portsmouth Yard*, upon the effects of his solution applied to the purpose of preventing ignition in Timber, or rather to prevent it from breaking into flame. In consequence of that Report, My Lords have ordered the Bulkheads in the holds and magazines of Her Majesty's Ships to be fitted with Timber so saturated; and it is also applied largely to the various buildings in Her Majesty's Dockyards.

I send for Lord *Stanley's* further information, a copy of a statement of the price per Load, of preparing Timber for building purposes.

I am, &c.

(Signed,)

W. B. J. HAMILTON.

G. W. HOPE, Esq.,
Downing Street.

PORTSMOUTH YARD,
13th March, 1844.

Sir,

With reference to your directions of 1st ultimo, to make experiments as to the degree of prevention against ignition into flame which Timber, saturated with Sir *Wm. Burnett's* solution, affords comparatively with Wood of the same and unprepared, we have the honour to state, that we have very carefully instituted a series of experiments on this subject, of which the following are the results.

Eleven different kinds of Timber were tried, each piece was two feet long, five inches wide, and three inches thick. Each piece was cut into two equal parts one foot long, and one part was prepared with a strong solution of chloride of zinc, (in the proportion of 1lb of chloride to four of water,) the other part was unprepared.

Care was taken, after the preparation, to endeavour to bring both to the same degree of dryness.