

**HEARING BEFORE THE  
COMMITTEE ON INTERSTATE AND  
FOREIGN  
COMMERCE OF THE HOUSE OF  
REPRESENTATIVES ON H.R. 7264**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649429721

Hearing Before the Committee on Interstate and Foreign Commerce of the House of Representatives on H.R. 7264 by Various

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd.  
Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

[www.triestepublishing.com](http://www.triestepublishing.com)

**VARIOUS**

**HEARING BEFORE THE  
COMMITTEE ON INTERSTATE AND  
FOREIGN  
COMMERCE OF THE HOUSE OF  
REPRESENTATIVES ON H.R. 7264**



1  
HEARING

BEFORE THE

107  
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE

OF THE

HOUSE OF REPRESENTATIVES

ON

H. R. 7264

AND OTHER BILLS PROVIDING FOR LIGHT-HOUSES, LIGHT-  
SHIPS, AND FOG SIGNALS TO BE LOCATED  
AT VARIOUS POINTS.



WASHINGTON:  
GOVERNMENT PRINTING OFFICE  
1904 THE LIBRARY  
OF CONGRESS

W.A. 1000  
1909

OF CONGRESS  
THE LIBRARY

S. C. J. 12/17/11

## LIGHT-HOUSES, LIGHT-SHIPS, AND FOG SIGNALS.

COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,  
*Friday, January 22, 1904.*

The committee met at 10.30 o'clock a. m., Hon. William P. Hepburn in the chair.

The CHAIRMAN. There are 19 bills which have been referred to this committee that relate to light-houses or the light-house service, and I have invited the members of the Light-House Board to appear here, as directed by the committee, to advise with regard to those matters. There is one bill that is especially important in view of the number of gentlemen present here that take an interest in it, and that is the Diamond Shoal light-house, as proposed in House bill No. 7264 and Senate bill No. 2319. I have not examined them to see whether they are identical.

### STATEMENT OF HON. J. H. SMALL.

Mr. ADAMSON. Mr. Small, is your bill the Senate bill or the substitute bill which was reported by this committee?

Mr. SMALL. The bill that was reported by your committee.

This bill was before the committee at the last session, and the committee after consideration reported a bill which is the same as the bill introduced by me and referred to this committee at this time.

The object of this bill is to authorize Capt. Albert F. Eells and his associates to construct a light-house on Diamond Shoal, at Cape Hatteras, on the coast of North Carolina. The point at which it is proposed to erect this light-house is at the outer Diamond Shoal, which is about 8½ miles from the mainland. This point is under water and it is proposed to construct the light-house in 30 feet of water. I need not say that this is the most dangerous point on the entire Atlantic coast, and if it can be marked and be a permanent and substantial aid to navigation any amount of money within reason which the Government should expend for the purpose would be justified.

An effort was made in 1885 or 1887—I forget the exact date—by the Light-House Board, under an appropriation of \$500,000 by Congress, to construct a light-house at this point. Plans were made which, so far as I know, were entirely feasible from an engineering standpoint. They were prepared by the Light-House Board and the contract was made with Anderson & Barr, of Pittsburg, and it is sufficient to say that they attempted to put the light-house there and to construct the caisson, but a storm came up during the construction and carried it away. Since that time no effort has been made by the Light-House Board to construct a permanent light station at this point. There has

been maintained for several years a light-ship about 6 or 7 miles farther out. The light-ship answers, of course, a very useful purpose, and I understand it is the opinion of the Light-House Board that in any event this light-ship should be maintained there. However, the fact is that this light-ship has been driven away from her moorings upon several occasions during storms and at times when this aid to navigation was most needed, and while the Light-House Board is hopeful of being able to secure this light-ship in the future in a more stable fashion, yet the storms there are of such force and duration that it may well be doubted whether they will ever be able to maintain a light-ship there which will ride out the severe storms which they have at intervals.

As to this particular bill, it proposes to authorize Captain Eells and his associates to construct this light-house. He says that he can do it, and he says that in order to demonstrate his ability to do it he is willing to construct it and to wait for his money. The bill that has been passed by the Senate provides that he shall be paid one-half in one year and the balance in two years. The bill as reported by this committee at the last session provided that he shall construct and maintain the light-house at his own expense for twelve months after construction, and that then for four years it shall be maintained at the expense of the Light-House Board, and then at the end of five years, if the Chief of Engineers of the Army shall certify that the structure is in a substantial condition and is a permanent structure and suitable for the purpose, he shall be paid the sum of \$590,000. The \$90,000, under the calculation that was made by the committee at the last session, was to compensate for interest at 4 per cent upon \$500,000, and to some extent, at least, compensate for the maintenance of the light-house for twelve months after it should be constructed.

I will not go into the details of the bill in regard to the specifications it gives as to the manner of construction. I can only say that this matter was gone into carefully at the last session and many amendments were made in these particulars, and, without meaning to single out any gentleman of the committee, I may say that the chairman gave very considerable attention to that feature of the bill. We believe if the bill should be subject to any criticism upon the ground that it does not give sufficient specification in order to enable an engineer to pass an intelligent judgment upon the character and permanency of the structure that the fact that the structure is not to be paid for until it shall have remained five years is sufficient in itself to guarantee fully the protection of the Government.

The CHAIRMAN. Will you give us briefly the character of this proposed improvement?

Mr. SMALL. It is to be sunken into the ground under water first in depth of water not less than 30 feet, and the caisson is to be sunken not less than 15 feet or a sufficient depth in order to obtain a secure foundation. That is to be filled in with masonry and concrete up to a point at least 20 feet above the mean water. That is to be solid masonry, except that there shall be sufficient space in it to contain a storage of fresh water and supplies in part for the light-house. Above this goes the tubular steel structure. I failed to state that the bottom of this caisson is to be 70 feet in diameter and is to be bell-shaped and to go up, gradually decreasing in diameter, so that at 30 feet above the top of the water it is 27 feet in diameter. From that point, 20 feet, is



erected a circular steel structure, and that goes up 20 feet farther, and it is to be 25 feet in diameter at the top. On the top of that is to be constructed another tubular steel structure of sufficient diameter to contain a spiral stairway in order to reach the top, and the light is to be upon the top, not less than 200 feet over mean low water. The lens is to be furnished by the Light-House Board and constructed under their direction.

Captain Eells proposes to make this structure permanent and substantial, and, as an evidence of his faith that it will be able to withstand the occasional tropical storms that come along Cape Hatteras, he says he is willing to wait five years for his money. I may say that a communication was obtained last year from the Weather Bureau, who keep a record of the storms, to the effect that these severe storms occur usually every two years, but certainly on an average of every three years. So, during the five years we would surely have one and perhaps more of these severe storms.

The winds there reach a velocity of 90 and 95 miles an hour, and sometimes 100 miles an hour.

Mr. STEVENS. How high do the waves run during those tropical storms?

Mr. SMALL. I would not attempt to state, but I can answer that they are very high. Perhaps some of these gentlemen can answer that question.

Captain SILVA. I would say that Hatteras is in a peculiar situation, between tropical storms and the north Atlantic storms, and I believe that more heavy and more dangerous storms occur there in the shoal water than on any other part of the Atlantic coast. As to the height of the waves, it would be hard to say what it might be, as storms vary very much, but it would seem many times that the light would be made obscure by the spray but never by the sea itself.

Mr. STEVENS. I was thinking about the top of this caisson and the steel structure in reference to that.

Captain SILVA. The top of the sea is always the worst and therefore the stronger part of this structure would be the base, and it would have the least resistance of any part of the structure.

Mr. RICHARDSON. Have you explained to the committee that an effort has been made heretofore to establish a light-house at this point and that it was a failure?

Mr. SMALL. Yes, sir.

Mr. RICHARDSON. And that under this bill there is to be no charge made against the Government until the Government has experimented with the light-house for one year?

Mr. SMALL. Yes, sir.

Mr. BURKE. How much money did the Government spend in attempting to construct that light-house?

Mr. SMALL. I do not know. I am not sure whether under the contract the Government spent anything or not.

Mr. BURKE. Do I understand you to say that this light-ship that is maintained there is at a point some 6 or 8 miles further out?

Mr. SMALL. Yes, sir.

Mr. BURKE. Would the light-ship necessarily be continued there if this light-house was constructed?

Mr. SMALL. I had supposed not, but I am informed that in the opinion of the Light-House Board, even if this structure was placed there,

they would think it best to continue the light-ship. They do not oppose the construction of the light-house but think it necessary. There was a communication from the Light-House Board at the last session which, as I understand, has also been substantially restated at this session, to the effect that they regard the construction of a light-house there as feasible, but think there should be a breakwater or shore station, for which they estimate a total cost of \$1,500,000.

#### STATEMENT OF CAPT. J. ED. O'BRIEN.

The CHAIRMAN. Are you connected with the pilot association?

Captain O'BRIEN. Yes, sir.

The CHAIRMAN. In what way?

Captain O'BRIEN. I am connected with the masters and pilots of steam vessels, as a member, and I am president of the National Bar Pilot Association, and I wish to state in the latter capacity that I represent a body of men who are all deep-sea men. In the former organization, I represent 10,000 masters and pilots of steam vessels, constituting all men who guide the ships on the Great Lakes, on the Pacific, on the Atlantic, and on the Gulf, and I know that I voice their sentiments when I ask this committee to push this bill as early as possible.

At a meeting of the representatives of the American Association of Masters and Pilots of steam vessels I brought this matter before them, and after due deliberation I offered a resolution and I believe that every mariner in that room seconded the motion for its adoption and it was adopted unanimously by a rising vote.

The CHAIRMAN. What was that resolution?

Captain O'BRIEN. The resolution would have been here, Mr. Chairman, but the wife of the clerk of that association was taken suddenly ill and he was called away. It was a resolution requesting the passage of this bill as early as possible, and the reason I say early is because a month's delay or the delay of a couple of months, at the most, would probably put that light-house off for a year. There are only certain months in the year that I know of when the parties who are going to place the light-house there can work. They must do the work in the summer months.

The CHAIRMAN. Have you any data as to the number of vessels and the amount of cargo destroyed at that point?

Captain O'BRIEN. I have not, sir, but the life-saving station keeps a record of what they know about, but in my judgment, the percentage reported officially is very small. I think that there are innumerable lives and also vessels lost that are never heard of.

The CHAIRMAN. Give the committee some idea, if you can, of the frequency of these marine disasters and their cost.

Captain O'BRIEN. I disagree with Mr. Small, because on account of my particular knowledge I think I know a little more about the situation than he does. I travel, not in my capacity as pilot, but I go very often north and south on the Clyde Line of vessels, and I have been on one or two occasions in what we call gales of wind, and on one occasion I think we were there in a hurricane, on the steamer *Iroquois*. I think that the gales have velocity enough to make the lightship drag her anchor more frequently than Mr. Small said. I think those gales happen at least once a year and I think they will average more than that. Is that the information you desire?

The CHAIRMAN. No; I thought the committee might be interested in knowing something about the number of vessels, the value of cargoes, and the number of lives lost.

Mr. SMALL. May I answer that question?

The CHAIRMAN. Certainly.

Mr. SMALL. The Life-Saving Station Service furnished a statement of the casualties that have been reported to them for the ten years from 1890 to 1900, which showed a loss in property and shipping of more than \$1,500,000 during those ten years.

Mr. STEVENS. Would not all the losses be traceable through the customs record of clearances?

Mr. SMALL. I can not say whether the manner or the extent of the losses would be reported by that method or not.

Mr. STEVENS. Every vessel that cleared from a port would be known and the destination would be known, and when she did not show up is not the loss usually traced?

Mr. SMALL. That may be true, but the Life-Saving Service only have the records of those reported in the regular channel.

Mr. ESCH. Could not that information be secured through the underwriters?

Mr. SMALL. I do not know.

Mr. BURKE. Do you know what proportion of this loss would have occurred if the light-house had been there? You do not mean that the losses and casualties occurred because it was not there, but they did occur; suppose the light-house was there?

Mr. SMALL. Very naturally, if this outer Diamond Shoal were marked by a light-house the casualties would necessarily be reduced. The fact that this shoal extends out eight or nine miles into the ocean and is covered by water, and by reason of the meeting of the currents there, which make a heavy, choppy sea and the other physical conditions, could be probably better answered by Captain O'Brien. Vessels frequently lose their bearings, go out of their course, and suddenly bring up upon this outer Diamond Shoal. They are beyond any hope of rescue from the Life-Saving Service, because the Service has no boat which could live in that sea and go out and rescue them. It means a total loss of everything, ship and cargo, but if this place were marked by a permanent aid to navigation, a structure such as this, it must necessarily tend to reduce the casualties.

Mr. RICHARDSON. What protection is there now to navigation?

Mr. SMALL. Nothing but the light-ship.

Mr. RICHARDSON. How far is that from the Diamond Shoal?

Mr. SMALL. Some 6 miles into the ocean from the outer Diamond Shoal.

Mr. ADAMSON. You stated the loss of property, but you omitted to state the loss of life?

Mr. SMALL. I do not remember it, but I can get that information and give it to the committee.

Mr. RICHARDSON. Was not a light-ship washed away in a great hurricane?

Mr. SMALL. Yes, sir; several times she has gone adrift and one time went ashore.

Mr. RICHARDSON. What year was that?

Mr. SMALL. In August, 1899, during a severe storm.

Mr. RICHARDSON. You say it is 6 miles out?