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LIGHTHOUSES

Their History



by
W. J. Hardy

Forgotten Books



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Their History

by

W. J. Hardy

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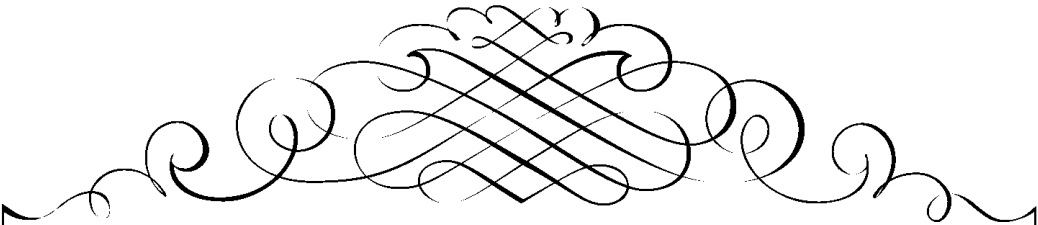
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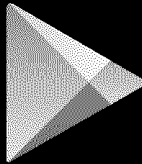
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LIGHTHOUSES

THEIR HISTORY AND ROMANCE

BY

W. J. HARDY, F.S.A.

AUTHOR OF 'THE HANDWRITING OF THE KINGS AND QUEENS OF ENGLAND ;'
'BOOK PLATES,' ETC.

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THE EDDYSTONE MEDAL, 1757.

PREFACE



I HAVE for some years past devoted a good deal of time to the study of facts connected with the history of English coast-lighting, and I have now woven together into this volume such of the scattered references to the subject which I have found, and have entitled it, *Lighthouses: their History and Romance*. That there is much romantic incident in connection with our lighthouses, and that many of them possess

interesting histories, the reader of the following pages will, I think, admit; and it is really surprising that no history of them has before this been compiled.

I could not have obtained the facts I have here been able to bring together had I not received constant and generous assistance from all those in whose power it was to render it; and were I to attempt to convey to the officials of the British Museum and Public Record Office, who have assisted me, individual thanks, I should unduly prolong this preface. Yet I cannot leave unrecorded my gratitude to Mr. W. Y. Fletcher, F.S.A., late of the Printed Books Department, in the first-named office, and to Mr. G. H. Overend, F.S.A., in the latter.

Not one half of the facts here recorded could have been obtained had I not received free and full access to the muniments of the Corporation of the Trinity House. This was accorded to me through the instrumentality of Sir Edward Birkbeck, Bart., and my good friend, his brother, Mr. Robert Birkbeck, F.S.A. I presented their introduction to Sir Sydney Webb, K.C.M.G., the Deputy-Master of the Trinity House, and that gentleman, Mr. Kent, the Secretary, and

Mr. Weller, one of the officials of the department, gave me every assistance in their power and the freest access to their records. To Mr. Dibdin and his assistants at the National Lifeboat Institution I also desire to express my gratitude for various information supplied, and in particular for some of the wreck incidents I have mentioned.

I am particularly grateful to Lord Kenyon for allowing the reproduction of two very interesting contemporary pictures of seventeenth-century lighthouses—those at Dungeness and the Scillies; and to Mr. Mill Stephenson, F.S.A., the Secretary of the Royal Archaeological Institute, for the use of one of the illustrations—the Silver Model of Winstanley's Eddystone Lighthouse—that appeared, some years ago, in the *Journal of the Society*.

My thanks are due, and I return them with pleasure, to my fellow-worker, Mr. William Page, F.S.A., who has always brought to my knowledge any fact connected with Lighthouse history that he came upon in his researches.

In presenting to the public the last volume which I published through the Religious Tract Society, *The*

Handwritings of the Kings and Queens of England, I was permitted to thank the Rev. Richard Lovett, M.A., the Society's Book Editor, for his constant help and advice in bringing out that work. I trust that I may be again accorded the privilege of thanking him for his unfailing courtesy and good nature in discussing and settling points of detail in connection with this present work.

W. J. HARDY.

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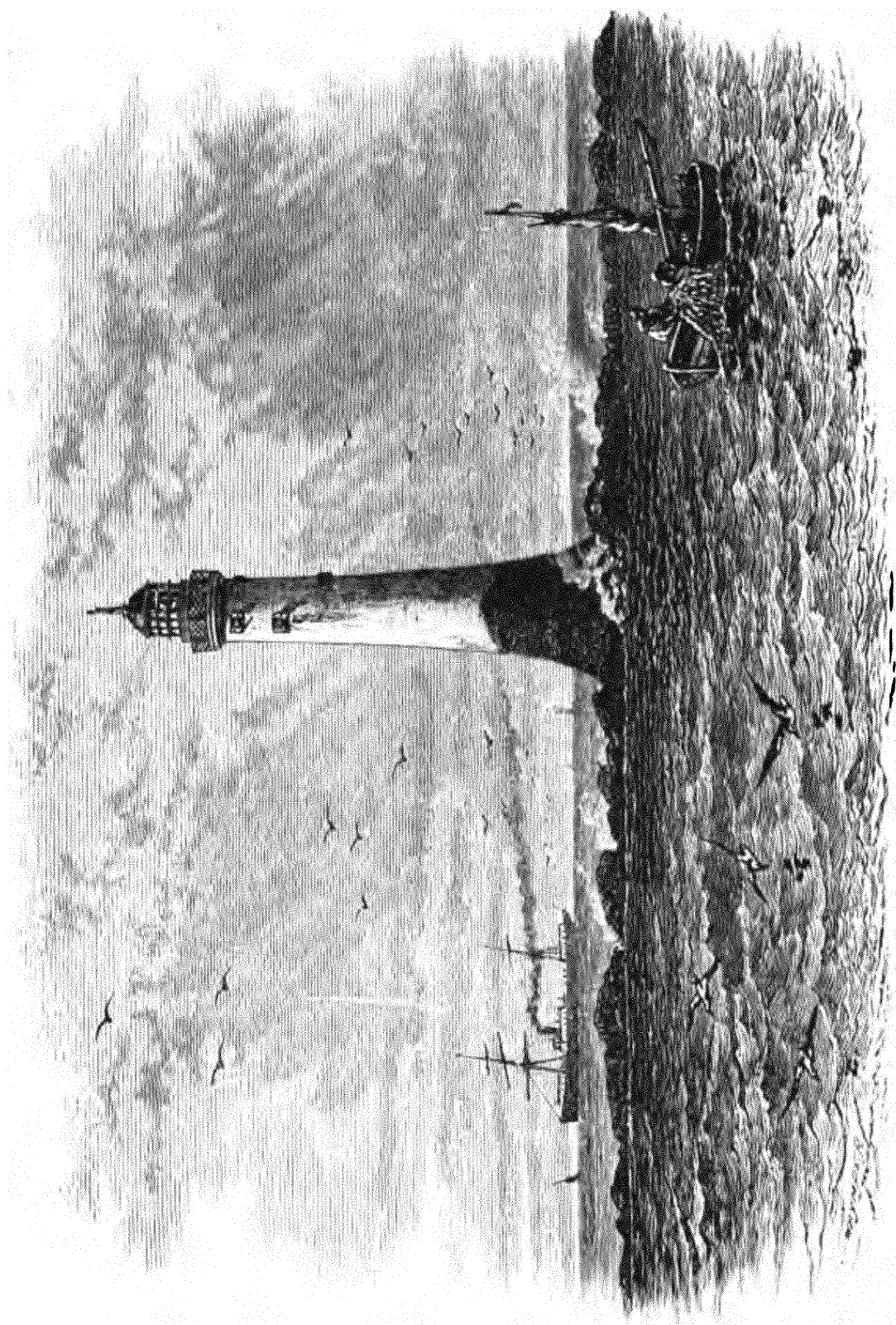
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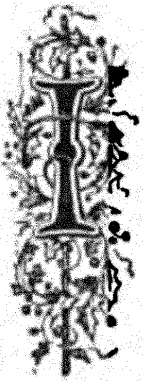
THE BELL ROCK LIGHTHOUSE.

CHAPTER I

ANCIENT AND MEDIAEVAL LIGHTHOUSES

‘ The good old Abbot of Aberbrothock
Had placed that bell on the Inchcape Rock ;
On a buoy, in the storm, it floated and swung,
And over the waves its warning rung.

When the rock was hid by the surge’s swell
The mariners heard the warning bell,
And then they knew the perilous rock,
And blessed the Abbot of Aberbrothock !’

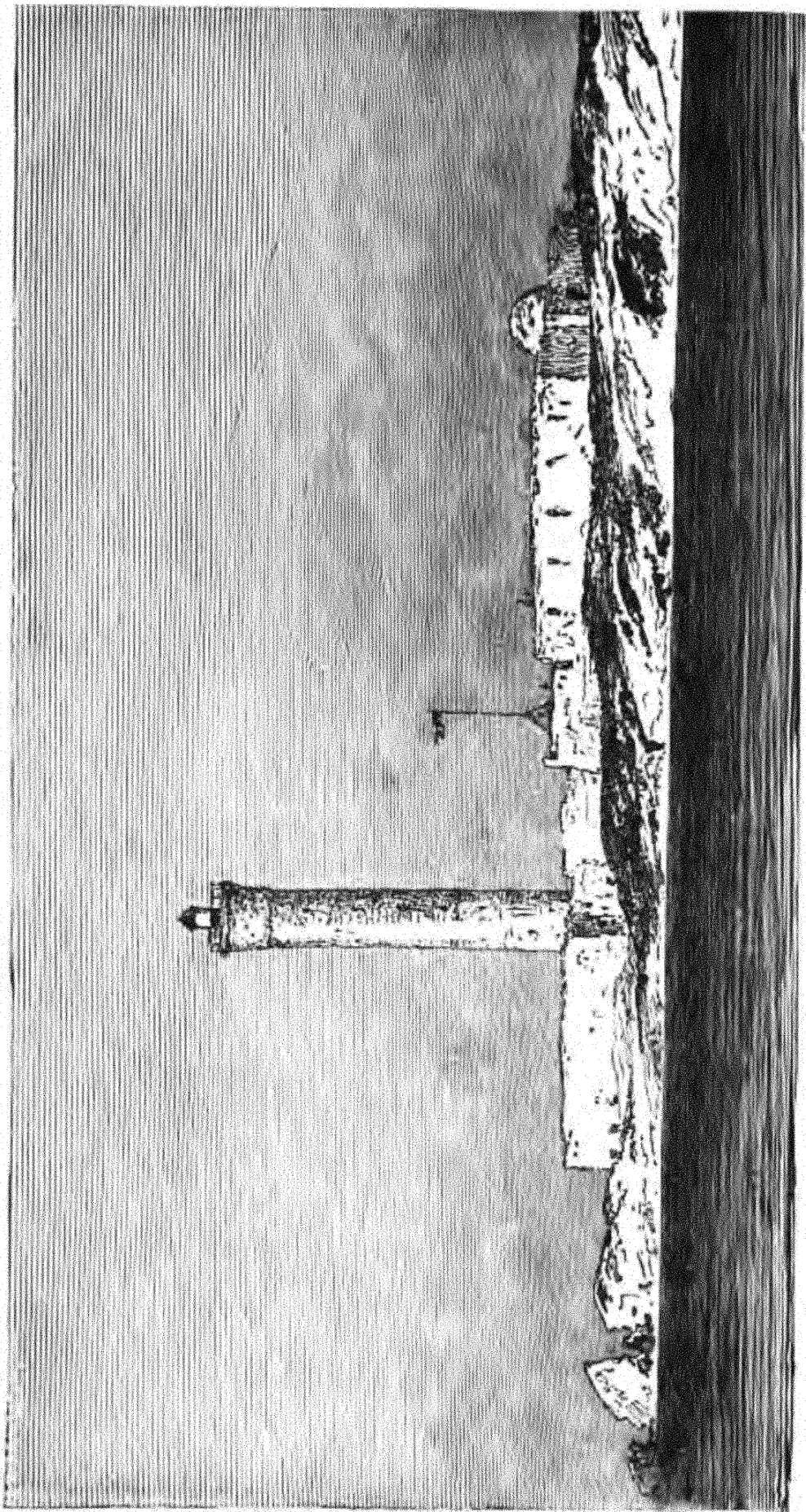


T was very good of the old abbot so to do ;
but in doing what he did, he was no better
than a great many of his fellows. Marking
dangerous reefs, and leading the mariner safely
into port, were, formerly, the work of Christian
charity ; they were two of the many useful offices which
the Church performed when there was no one else to carry
them out, and for which we, who see the same things so
much better done, often forget to bestow upon her even

a word of praise or gratitude. Bells on rocks, marks on shoals and sands, and beacon lights used to be maintained by the great monasteries, or by their various offshoots, in this country; and those beacon lights, dim, flickering, and uncertain though they may have been, were the direct ancestors of the modern lighthouse.

We do not, of course, claim for Christian charity the credit of *originating* the idea of these warning signals for ships. Long before the dawn of Christianity, Lybians, Cushites, Romans, Greeks, and Phoenicians had protected navigation by the means of lighthouses—high columns, on the summits of which were placed fires of wood in open grates, or lamps lit by oil, all similar in style, though on a smaller scale, to the wonderful tower of white marble, erected at Alexandria, nearly three centuries before the birth of Christ, by Ptolemy Philadelphus at a cost of about £170,000 of our money.

Opinions differ as to whom should be ascribed the honour of paying for this mighty work; Alexander the Great and Cleopatra have been credited with it; but, on the whole, such reliable evidence as there is points more to Ptolemy as its projector. This being so, we may perhaps believe the story about the inscription that was placed upon the tower. The architect's name was Sostratos, and he, desiring to be perpetually remembered in connection with the lighthouse, cut deeply into one



of the stones these words : ‘ Sostratos of Guidos, son of Dixiphanus, to the Gods protecting those upon the sea.’ Then—being assured that Ptolemy would permit no name save his own to be remembered in connection with the work—he coated over the inscription with a layer of cement, and placed thereon one wholly laudatory of Ptolemy and associating his name alone with the erection of the pillar. Time went by ; monarch and architect had been gathered to their fathers, and at last the cement began to crack, and then drop away ; bit by bit it vanished together with the writing upon it, and the letters on the true face of the stone beneath stood out clear and readable—then the world knew to whose skill was due this blessing to sailors and travellers !

But it is not needful to speak further of these more ancient lighthouses, or their builders ; reference is made to them only to remind the reader of the antiquity of coast lighting as a system. These pages concern the lighthouses of our own country alone, and there is no evidence to prove or suggest that the shores of England were lighted prior to the Roman occupation. Indeed, of direct evidence of lighthouses being used by the Romans in Britain, there is exceedingly little. The system was extensively employed by them in Gaul, and the Tour d’Ordre at Boulogne—or ‘ the Old Man of Bullen,’ as Elizabethan sailors called it—is mentioned

as a lighthouse in the year 191 A.D. ; so that it is hardly likely that the Romans would, for long, have left navigation around England unassisted by lights.

We may, therefore, accept the ruined tower at Dover, and some similar remains on the English and Welsh coasts, as remains of Roman lighthouses.

Whether or not, with the decay of the Roman power in England, lighthouses fell to ruin, we do not know ; probably this was so, and probably, too, they were not resuscitated till Christianity had become firmly established here and was teaching men charity towards their fellow men. So early as the opening of the fourteenth century we find monks and hermits in England, and other maritime parts of Europe, doing their best to warn mariners of the dangers that lurked around their monasteries or hermitages, by means of lights maintained during the season of darkness.

To the north of the island of Jersey lie a cluster of sharp-pointed rocks, known as the Ecrehou. Sailors give them a wide berth when they can ; as well they may, for their cruel spike-like reefs stretch far, and on calm days, when the water is not breaking upon them, they lie silently and treacherously in wait for the passing ship.

On the largest of these rocks there was, in the year 1309, a hermitage, or priory, served from the Norman

abbey of Val Richer. Land in Jersey had, years before, been given to support two monks here who, by day, used to sing masses for the souls of those who had perished by shipwreck, and then, as night closed in, kindle, and keep burning till daybreak, as good and bright a light as they could upon their tiny building.

Here is a picture romantic enough, and research would, no doubt, enable us to paint many such. The ruined chapels that one so often sees to-day, perched upon a rocky crag or headland of our coast, were often, in all probability, lighthouses to the mariner of old.

But it is not necessary to leave too much to imagination. A great deal more can be said to prove that the maintenance of sea-lights was, in mediaeval England, really a religious office. Most of us have heard of (many have seen) the famous lighthouse on St. Catherine's Point in the Isle of Wight. It was built only at the close of the last century, but hard by it, from the hermitage chapel on Chale Down, a light had been nightly kept, by the monks there serving God, for more than five hundred years. I shall tell the history of this lighthouse later on.

So, too, in 1427, a hermit who had settled at Ravenspurn—close by the Spurn Point on the Humber—moved by the constant disasters to shipping that he witnessed, set to work to build a lighthouse to warn vessels entering

the river of the dangers of the point ; and of this lighthouse also I shall have more to say presently.

Then on the chapel of St. Nicholas, which stood above the harbour of Ilfracombe, there was maintained by the priests who served in the chapel a fire of wood, which was lighted, throughout the winter, at dusk, and by being constantly tended gave throughout the night a light that to ships at a distance seemed like a bright star, and guided them safely into port. The site of this chapel is yet called Lantern Hill, and a light is still shown there from a lighthouse at night during the winter months.

In one instance, at least, the work of coast lighting was performed by a religious guild : the Brethren of the Blessed Trinity of Newcastle-upon-Tyne—the Trinity House of Newcastle, as it is now called. In 1537 Henry VIII committed to this guild the general care of all matters connected with the navigation of the Tyne, and amongst other things which the guild had expressed its willingness to do, was to build two towers on the north side of ‘ Le Shelys,’ one a certain distance above the other, to embattle these towers for due defence of the port, and to maintain on each ‘ a good and steady light by night,’ for the guidance of passing ships. In 1746 these two lighthouses, one of which was movable, were still standing ; they were illuminated only by a few

candles, but were the sole lighthouses of which the River Tyne, at its entrance, could boast.

Then, to emphasize further the fact that, prior to the religious changes in the reign of Henry VIII, coast lighting was carried on as a work of Christian charity, we may call to mind the traditions, so often associated with the towers or steeples of parish churches on the coast, that those towers or steeples had once been lighthouses. Blakeney, in Norfolk, is one of these, Boston is another; from the summit of 'Boston Stump'—as the marvellously high tower of the latter church is called—we are told that a light was formerly displayed by which sailors in the German Ocean could shape their course to enter 'Boston Deeps' in safety.

The dissolution of the monasteries swept away, almost at a blow, the men who tended these coast lights as a sacred duty, and it confiscated the property from the profits of which such lights had been maintained. Leland, when he travelled through England and Wales, after the dissolution had been some little time in progress, found few coast lights remaining: here and there he mentions them, but it is difficult, from his language, to decide whether those he refers to were still nightly lit, or whether he gained from the sailors and fisherfolk with whom he talked that they had been regularly lit shortly before.

That our coast, only a little previous to the dissolution, was well lit, and that lighthouses of some kind or other were not uncommon, we may gather from the writer of the *Pilgrimage of Perfection*, who, in the year 1526—when speaking of the benefit to the soul by frequent contemplation of death—says: ‘It depresseth all vanities, dissolution, and lightness of manners, and, *like as the beacon lighted in the night, directeth the mariner to the port intended*, so the meditation of death maketh man to eschew the rocks and perils of damnation’: and that, after the dissolution, all, or the great majority, of these lights were extinguished, we may certainly infer by a study of *The Mariner’s Mirrour*, compiled by Wagener, a Dutch navigator, in 1586, and translated into English two years later by Anthony Ashley. Wagener describes minutely every object on the sea-coast of England, but does not refer to any nocturnal lights, with the exception of those at Shields, which we have seen were established under peculiar circumstances and only just prior to the dissolution.

But the want of lighthouses must have been keenly felt by sailors; and those engaged in navigation, no longer able to get what was needed as charity, seem, after a while, to have suggested paying for it. One of the earliest post-reformation lighthouses suggested was that at Winterton, for which we hear proper

just about the time that Wagener wrote his description of the English coast. Now what was the site which naturally suggested itself for establishing this light? Why, *the top of the church steeple*; where, likely enough, a similar light had formerly been maintained as an act of charity.

The proposal emanated from 'the masters of her Majesties Navye,' and was made on behalf of the seamen of the counties of Norfolk and Suffolk; 'there be,' it says, 'many perillous sandes in the sea, thwarte of Hasborrowe Winterton, and the towne of Great Yermouthe, wheruppon manye shippes and men are often perished in the night tyme.'

The danger of these sands might well be avoided 'iffe a contynuall lighte were maynteyned uppon the steeple of Winterton,' which might be easily done, without any 'greate imposition or taxation,' if every English ship trading by the coast, or to the East countries, paid some small contribution.

Nothing seems to have come of this proposal, and the next suggestion we hear of for a lighthouse at Winterton is one some twenty years later in 1607, made by the Trinity House to maintain a light, not on a church steeple, but in a building specially erected for the purpose.

Nor was this a solitary lighthouse scheme. We hear,

just then, of another—a very mad one, it is true, but none the less interesting on that account—for a lighthouse on the Goodwins, of which I shall speak later. Probably there were many more such proposals before Queen Elizabeth and her council just then, for it is impossible to conceive that men, many of whom must have had personal experience of the benefits of coast lighting, would be content to sit down and do without them just because the religious changes had swept away the machinery that had before supported them.

CHAPTER II

THE TRINITY HOUSE



NOW, some time before the monastic dissolution, there had been founded in Deptford Church a guild or fraternity of sailors who undertook to watch over the interests of all concerned in shipping. This guild, dedicated to the honour of the Trinity, had, by the time of which we are speaking, or a little later—say the opening years of the reign of James I—come to be known by the name we know it to-day, the Trinity House, and had developed into a rich and powerful corporation possessed of important royal charters, regulating the general management of navigation, and supporting and administering a number of exceedingly useful charities.

But this great corporation was ambitious, jealous of the powers it possessed, and greedy to usurp more; the superintendence of the buoys and beacons which marked

out channels by day had become vested in it, and its governing body alleged that it was also possessed of the sole right of establishing lighthouses.

The question had arisen in respect to one of the lighthouse schemes we have just mentioned. It had been proposed, as pointed out, not from charity, but as a commercial speculation. Persons had come forward and said they were willing to establish a lighthouse at such and such a place, and to maintain a light there throughout the night, in return for certain tolls which they should levy on passing ships ; and they had applied to the sovereign for the necessary licence to gather the toll, and had received the desired warrant. But, said the Trinity House, if anybody is to have this privilege, we will ; the right to erect lighthouses and gather money for their support is surely vested in us by our various charters and Acts of Parliament !

So began a very pretty squabble, that did not die out till hard on the end of the last century, between the Crown, the Trinity House, and the private lighthouse speculator or builder. The wealthy shipowners, many of whom were probably also colliery owners, became alarmed at the number of lighthouse projects that were quickly launched. It was all very well to give a voluntary contribution to support one or two lighthouses at specially dangerous points, but on the whole it paid

better to lose a ship or two now and then, and a few men's lives, than be put to a regular fixed charge for the safety of navigation. That was their view, and as the Trinity House Board was largely composed of men whose interests were identical, that was their view also. Lighthouses were considered a luxury, and if bestowed at all the Board must be the bestowers, and the bestowals be made as seldom as possible.

Debates in Parliament and discussions in the Privy Council followed, and the opinion of the law officers of the crown was taken. The general impression seemed to be that the Trinity House was really charged with the erection and maintenance of coast lights, but that it could not impose rates for so doing. If it wanted to do that, it must get a special patent or licence from the crown, and this the crown might give either to the Trinity House or to any private individual.

And so the squabble went on till towards the end of the eighteenth century, and every lighthouse scheme emanating from a private person was opposed with ruthless vigour by the Trinity House. The watchful care of the present corporation for the interests of navigation, the perfect system of its machinery, and the public spirit of all concerned in its management, stand out in pleasant contrast to the policy and action of the Trinity House of the past, when schemes for lighting the Lizard,

St. Catherine's, the Forelands, the Goodwins, Dungeness, the Spurn, the Farne Islands, and a host of others, were condemned as 'needless,' 'useless,' or 'dangerous,' and 'a burthen and hindrance' to navigation.

But despite opposition and hostility, lighthouses, for which rates were gathered, were built in considerable numbers, so that by the first half of the seventeenth century these welcome signals to the mariner broke forth into the gloom of night from many a dangerous headland of the English coast. Of course they were not erected in positions that called for the display of great engineering skill; reefs and shoals that lay far out at sea had to go unmarked till much more recent times. The ever-shifting Goodwins drew forth suggestions for indicating their dangers as early as the days of Queen Bess, but the suggestions emanated from those whose enterprise was greater than their capacity, and came to nought. The Eddystone lighthouse, fourteen miles from shore, was really the *first* great engineering triumph connected with coast lighting, and Winstanley, with all his pedantry, deserves a niche in the Temple of Fame for having erected a lighthouse there at all!

Floating lights, or lightships, were, I think, projected as early as 1623, though the project was not then actually carried into effect¹; and they were proposed

¹ See chapter viii.

again, as 'a novelty,' half a century later at the Nore. But the Trinity House laughed at the suggestion, and the Nore remained without a light till 1730, or thereabouts, when the first lightship actually established was anchored there.

But it is not fair to say thus much and no more about the Trinity House. Its history was written not long since by Mr. Barrett, and the reader who turns to this will see that if its 'lighthouse policy' was bad and illiberal, the utility of the corporation was manifested in many other ways; all through the reign of Charles I it was busy rendering efficient service to the Navy. The corporation dissuaded the king from building, merely for show, what was then a 'big ship'—124 feet long, and 46 feet in breadth, and drawing 24 feet of water; no existing port could take such a ship, and no anchor or cable would hold her. The brethren might have preached from the lesson taught by the Armada; ours were the small craft that won in combat with the floating castles of Spain. 'The wit and ingenuity of man,' say the brethren, 'could not produce a seaworthy craft with three tiers of ordnance. If your majesty desires to serve the Navy, build two ships—the same money will do it!' It is very curious to mark how Government got for nothing a great deal of valuable advice, and it is not very clear when the practical control of the

dockyard at Deptford ceased to be in the Trinity House.

All this time the corporation charities were not forgotten. Besides enlarging the almshouses at Deptford, they were building others at Stepney, and organizing means for the relief of aged seamen, which was practically a scheme for insurance against old age and sickness.

Let us also, before we leave the subject of the Trinity House, say something further as to its history up to the time of the control of all lighthouses around the English coast being vested in it by Act of Parliament. In the angry days of the struggle between the King and Parliament, the board was loyal to the former, and paid its debt to the latter by being superseded in its authority by a committee. But with the restoration of Charles II came also a restoration of the ancient privileges of the Trinity House, which were watched over by General Monk as master. Other famous men presided over the corporation somewhat later; amongst them Samuel Pepys, in whose *Diary* are many allusions to his work there.

In the Restoration year the corporation moved from its former home to the more central one in which we now know it, near the Tower of London. Trinity Monday was that year kept in good style by a dinner

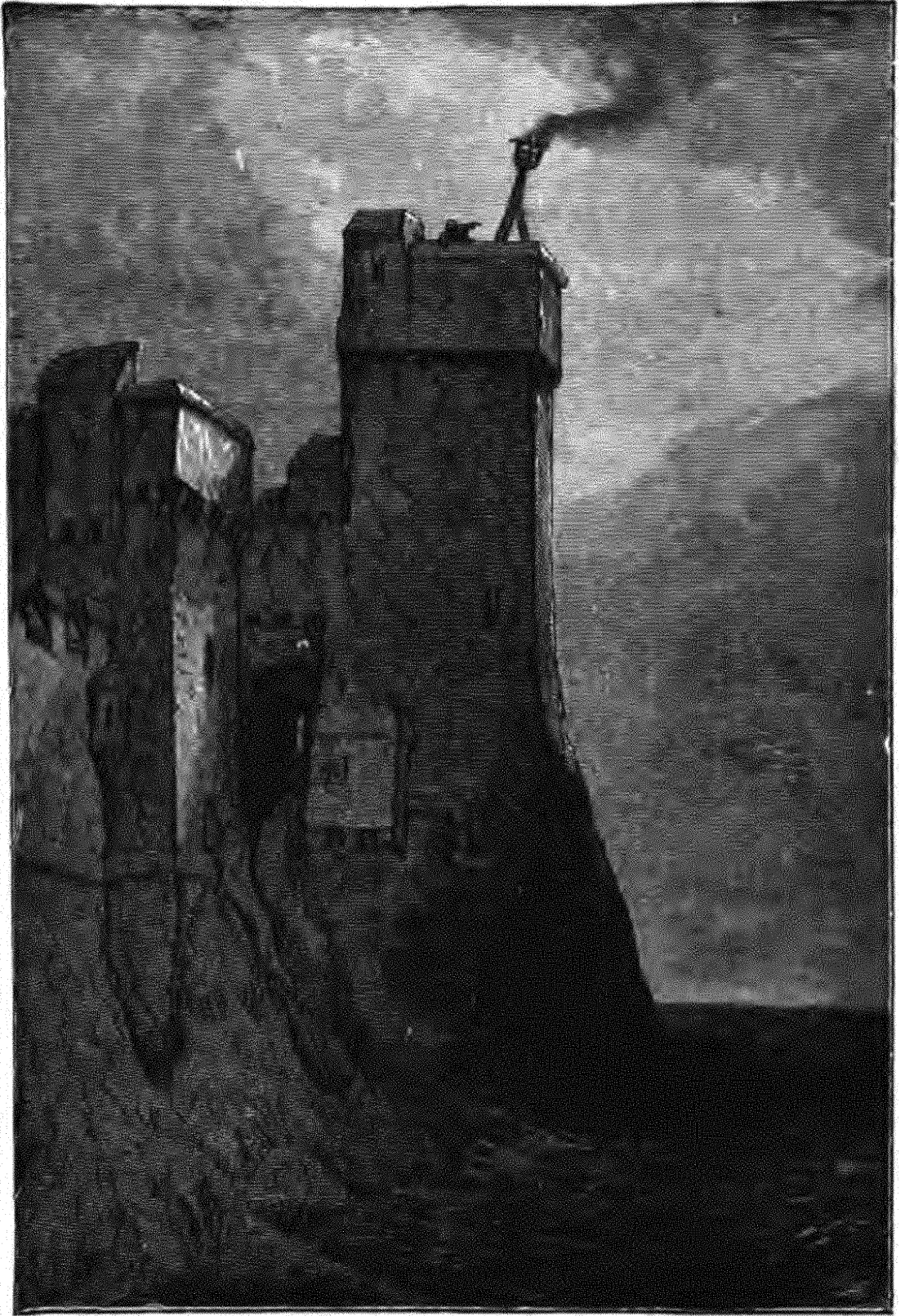
for forty. But the corporation did not long enjoy the comforts of its new home; the flames of the fire of London licked round it, burnt the woodwork, and gutted it, destroying valuable pictures and also papers and parchments which would have drawn aside the veil that now shrouds the early history of the fraternity. It was not till August, 1670, that the house was built again; the rebuilding was no light matter, and in 1672 the corporation was £1,100 in debt, and some years elapsed ere that was wiped out. Meanwhile, every brother, elder or younger, seems to have behaved with a public spirit, foregoing any participation in the funds of the institution, leaving that for the poor and needy.

A little after this, whilst Pepys was master of the Trinity House, the suggestion was put forward of a compulsory purchase by the board of all existing light-houses. We will not speculate as to the object the brethren had in desiring this acquisition; it is sufficient to state that its policy towards lighthouse schemes in general was not one which could have given the public much confidence; the time had not yet come for the scheme proposed.

But a little more than a century later the lighthouse policy of the Trinity House had entirely changed. The board no longer thwarted proposals for lighthouses and lightships in places needful; it was itself proposing

them and helping, with its powerful hand, the sailor to fight for his rights in demanding that, for the dues he paid, the private owner should show a good and a steady light, and was furthering every project put forth by men of science for improving the power and intensity of lighthouse luminants.

The result was inevitable. Sailors, merchants, the people at large, began to look upon the corporation as every one looks upon it to-day—as a public-spirited institution, labouring its hardest in the interests of navigation. So it came about that in the year 1836 privately maintained lights were altogether extinguished, and the entire control of our lighthouse system handed over to the corporation that now directs it.



ANCIENT COAST-LIGHT.

CHAPTER III

ANCIENT METHODS OF LIGHTING



O much for the general history of coast lighting. The reader will now wish to hear something about the luminants used of old. and of the improvements that have been made in the system of lighting. It has been said that the lighthouses of the ancients were tall columns, on the tops of which grates were placed, and in these fires of wood or coal were kept burning. The mediaeval lighthouses of England were, some of them, of similar construction, but there were varieties; if the light was placed on the steeple or tower of a church or chapel it would probably be of the kind mentioned; but if the light was shown from *within* the tower, candles or oil lamps would be used. The hermits of the Ecrehou refer to the *fire* which they kept burning all night to warn passing vessels; the monks or hermits

of Chale, in the Isle of Wight, displayed a light of candles or oil in the top story of their tower, which was an octagon with windows on every side.

After the Reformation the use of oil seems at first to have been entirely laid aside; a few of the lighthouses erected were lit by candles, but coal or wood fires certainly illuminated the majority. Given a properly filled grate and a fair breeze, this was certainly the best kind of light.

But towards the close of the seventeenth century it entered into the mind of economical man to enclose his coal or wood fire in a lantern with a funnel or chimney at the top. This saved the fuel, but, for that reason, it did not improve the light, and the fire, no longer fanned by the sturdy sea-breezes, needed the constant use of bellows to maintain a flame. Sailors complained a good deal of these shut-in lights, which were tried at Lowestoft, the North Foreland, and the Scilly Islands, and after a while the lanterns were removed; but coal or wood fires were used as lighthouse luminants as late as 1822.

The situation of the Eddystone—miles from the mainland, with no space for fuel-stacking—rendered it necessary to think of some other luminant than a fire of coal or wood, and candles, a considerable number of them, of course, were used there from the date of its

first construction till comparatively recent times, when oil lamps were substituted.

The use of oil as a luminant for lighthouses did not—after the Reformation—come in till almost the middle of the last century. This is strange, as oil was certainly used for that purpose by the mediaeval lighthouse-keepers. In November, 1729, a certain Thomas Corbett begged the permission of the Trinity House to try the *experiment* of lighting the South Foreland lighthouse with oil. I do not know if this trial was ever made, or what was thought of it if it were; but certainly oil was not generally re-adopted as a lighthouse luminant till much later.

In 1763 we first hear of an endeavour to increase the intensity of the light shown by means of a reflector. It was then successfully tried by William Hutchinson, a master mariner of the port of Liverpool, in connection with a rudely constructed flat-wick oil lamp; M. Argand, a citizen of Geneva, about the year 1780, improved on this system by his cylindrical-wick lamps in conjunction with a silvered reflector. This is probably the form of light which *The Gentleman's Magazine* tells us was, in 1783, displayed from a hill near Norwood, and nightly viewed by an astonished crowd on Blackfriars Bridge. On Argand's system Augustine Fresnel afterwards improved, by his large concentric-wick lamp and

lenses. Gas was suggested by Aldini of Milan in 1823 ; but for many years was used only for lighthouses on piers and harbours, or in places adjacent to gas works ; and it was not till 1865 that we find gas construction taking place at out-of-the-way lighthouse stations for the purpose of supplying the light.

The year 1853 saw the first attempt at the use of electricity as a lighthouse luminant ; a series of experiments with it were then carried out under Faraday's supervision at the South Foreland. Nine years later Drummond tried the lime-light at the same lighthouse.

But there is yet one feature in the system of coast lighting which deserves attention. The difficulty felt by mariners in *identifying* a particular light when seen, was evidently experienced as early as the opening years of the last century, when lighthouses had begun to materially increase in number. It was not, however, till 1730 that we find any plan of distinction put forward. In that year Robert Hamblin, a barber at Lynn, patented his invention 'for distinguishing of lights for the guidance of shipping,' which was, that at each lighthouse station the lights should be placed 'in such various forms, elevations, numbers, and positions that one of them should not resemble another,' and he undertook—as soon as the distinguishing features were agreed upon—to prepare and publish a chart of the coasts of

England and Wales, in which such lights should be distinctly expressed. It is probable that in a measure Hamblin's plan was acted upon, as lights erected after this date were mostly arranged in groups.

But the really effectual method of distinguishing one lighthouse from another is that at present in use, of *hiding* the light shown for a certain number of minutes or seconds, varying at different lighthouses. It is unnecessary to dwell upon the constructive skill displayed in the machinery by which this temporary eclipsing is produced; but of the antiquity of the system it is our province to speak. It seems to have been first tried at Marstrand, a once thriving port of Sweden, some twenty miles to the north of Gottenburg, and its effects and utility were discussed in maritime circles throughout the world. But France alone, of the various countries that considered the new system, adopted it; long before we in England had taken any steps in the matter, France had given public notice that the French coast would be illuminated by lights which might be known one from another by the differences in the periods of their being visible or eclipsed, and the French government issued an explanatory chart.

So much for the general history of coast lighting. Now that we have seen with what vigour the lighthouse battle was fought in the past, and the fierce opposition that

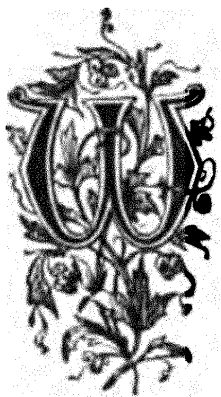
has been offered to almost every lighthouse scheme put forward, we shall not wonder that such 'luxuries' as lighthouses did not rapidly multiply on the English coast; a century ago there were not forty on our shores from Berwick round to the Solway Firth. Of some of these we shall speak in subsequent chapters, again reminding the reader that the general acquirement of all lighthouses by the Trinity House took place in the year 1836, and that, for many years before that date, the policy of the Trinity House towards lighthouse schemes had entirely changed. As I said at the close of the last chapter, all selfish hostility to privately maintained lights had ceased, and the Trinity House was working in the true interests of navigation, and its only desire for the entire control of our English lighthouses was that in regard to their management the very best should be done that could be done.



OUTER FARNE LIGHTHOUSE.

CHAPTER IV

GRACE DARLING



WITH the exception of the lights at the head of Berwick pier, those on the Farne Islands, on the Northumbrian coast, off Bamborough, are the most northerly in England. Legend tells us that from a now ruined tower on one of the islands a light was formerly shown as a warning to passing ships; and

if that was so, then in all probability it was one of those lights of which we have already spoken as being supported by charity, and was tended by a monk or hermit from the famous monastery of Holy Island. Such light would, of course, have been extinguished at the dissolution of the religious houses, and no other, however dim or flickering, marked the dangers of the Farne rocks till the year 1776. Proposals were made for a lighthouse on these islands some hundred years before, by a certain Sir John Clayton, who put forward many schemes for lighthouses, as objects of profit, at many points on the coast, but nothing came of it; it was crushed by the influence of the Newcastle traders, who did not relish having to pay for it. The sailors engaged in the northern coasting trade set these proposals afloat again in 1727, but they were stifled before they came to anything, though the then secretary to the Trinity House admits that he has heard 'judicious commanders' speak well of the suggestion.

However, opposition—honest or the reverse—kept the Farne rocks without a lighthouse till the year 1776, when the first of the two that at present light them was set up. The second, on the Longstones, was built in 1810, and it is this latter that has become familiar to us as the scene of Grace Darling's heroism.

It was customary, sixty or seventy years ago, to place

a family in charge of a lighthouse—a man, his wife, and one or two children, all of whom, male and female, if above a certain age, received a trifling salary, and were looked upon—women and girls quite as much as men and boys—as assistant light-keepers ; indeed, there were women light-keepers appointed by the Trinity House so late as 1860.

An arrangement such as this was adopted at the Longstones lighthouse ; William Darling, his wife, and their daughter Grace, a girl of twenty-one, trimmed and tended the lights as recognized officials of the Trinity House.

Grace was born at Bamborough, but she had gone with her parents to live at the Longstones when but a few months old. In this desolate home she had grown accustomed to every form of weather ; the laughter of a summer's breeze equally with the wail of a winter's gale had been her cradle song. As she grew up, she spent the time she was not helping her parents, in rowing and fishing, and when ten or eleven years old her father could trust her to manage the lighthouse boat even in the roughest weather. Grace was no scholar—her opportunities of acquiring information were obviously limited—but she could read and write well, and she made good use of the former accomplishment, eagerly drinking in every scrap of information that her father's

twenty or thirty books contained regarding acts of courage and daring performed by the toilers of the sea either in peace or war. Her great ambition was that, one day, *she* might have the opportunity of emulating the example of those whose deeds she loved to study.

That opportunity came to her at last. At dusk, on September 6, 1838, the wind that throughout the day had been freshening was blowing considerably more than half-a-gale, and in the teeth of this the steamer Forfarshire, hailing from Hull and bound for Dundee, passed between the Farne rocks and the Northumberland coast. The ship was 'labouring' heavily, and Grace, as well as her father and mother, eagerly watched her progress till night closing in hid her from their view.

With the darkness the wind blew yet more fiercely; all through the night it raged with un pitying fury, and the watchers on the Longstones talked long and anxiously over the vessel that had passed them. Darling did not like the look of her, or the way the storm seemed to be handling her. Neither father, mother, nor daughter took any sleep that night: when not busy tending to the light or wiping the spray from the glass of the lantern they peered into the darkness, thinking perhaps they might catch a glimpse of some signal of distress

either from the steamer or some other vessel, yet no light or signal was observable.

But the first rays of morning revealed to Darling that his apprehensions for the Forfarshire were well-founded.



GRACE DARLING AND HER FATHER ON THE WAY TO THE WRECK.

On Hawkers Rocks, a mile away from the lighthouse, could be seen the remains of the wrecked vessel, the remnant of her living freight clinging to it. What could be done? It seemed madness to launch the lighthouse boat in such a gale, but Grace begged her father to make the attempt; she would go with him, she said, and

God, she felt sure, would give them strength to perform the daring enterprise.

We know what happened. Darling yielded to his daughter's prayer, and the survivors of the Forfarshire, few in number it is true, but all that outlived the fury of that awful night, were brought by Grace and her father safely back to the lighthouse and carefully nursed by the humane keepers till the weather changed and they were taken to Bamborough. Thus the ambition of Grace's life had been realized ; she had tested her courage, and it had not failed her.

All along the Northumbrian coast the news of the daring deed spread with wonderful rapidity : presents and letters were heaped upon Grace Darling in a manner she had never expected. The Trinity House granted the 'family' leave of absence from the lighthouse, and the Duke and Duchess of Northumberland entertained them at Alnwick, where, on leaving, Grace was presented with a purse containing £700. Her exploit was the talk of London and of all England, and the print-sellers' windows gave a liberal display of her portraits.

She received all these tokens of approbation with an unaffected pleasure that added to her charms and her popularity, but her naturally retiring disposition would not allow her to accept the offer of an enterprising theatre manager to appear nightly on the London boards.

Neither were offers of a more permanent nature—offers of a heart and home—accepted by her; the very exploit that had made her famous seemed to bind her affections more closely to her insular home and her duties there. She spent the rest of her days on the



GRACE DARLING.

lighthouse, helping her father and mother as before, and only paying an occasional visit to the mainland. Though innumerable accounts of her early days and of her daring exploit exist—the latter is the subject of poem, song, and story—we hear little of her subsequent life, or of the time when the illness which a few years later

terminated fatally first manifested itself. She died on October 20, 1842, and was buried in the churchyard at Bamborough. Her death was the signal for a fresh outburst of literary commemoration of her daring act; but no more appropriate tribute to her memory exists than the lifeboat now stationed at Bamborough, which bears her name, and which, winter after winter, renders good service to vessels wrecked or in distress, often on the very reef on which the *Forfarshire* stranded. Grace Darling is not forgotten by the stalwart Northumbrian sailors who man that lifeboat; her story and the song in praise of her courage has been taught to them by their fathers and mothers, and they may yet be heard to sing it, as in their well-fitted boat, possessed of the latest appliances to ensure safety, they make their way to some sinking ship, and think of the frail girl and her father, who in nothing more than an open rowing boat risked their lives to save a perishing crew.

CHAPTER V

THE SPURN HEAD



PASSING southwards from the Farne, the next lighthouse of which there is anything like ancient mention is Tynemouth; probably the monks at this important northern offshoot from St. Alban's Abbey had shown a light from their priory, and when we first hear of the lighthouse there in the seventeenth century it was in great ruin. At Flamborough Head we have Camden's authority for saying that the name was derived from a Roman pharos there; but there is no evidence of a mediaeval lighthouse at this spot, and before coming to one of these we must pass on to the Spurn Point, at the mouth of the Humber.

Here a lighthouse was erected in 1427, under circumstances which are in themselves interesting and romantic; so, in accordance with a promise in the first chapter, I will tell the story somewhat in detail.

The coast between Flamborough Head and the Wash has undergone very remarkable changes within historic times: the old chroniclers record very frequent inundations of the low-lying lands, and finally the entire washing away of a thriving port-town which sent a couple of members to Parliament. Its destruction—so the chroniclers say—was due to the extreme ungodliness of the inhabitants, who, such as escaped a watery grave, fled higher up the Humber to the then insignificant village of Hull, and soon raised it into a centre of commercial activity. These folk did very well, and, we will hope, lived to repent of their former wickedness; but how about the poor wretches who had been carried into eternity unrepentant? This was the thought that weighed on the pious mind of a monk at Meaux Abbey, and so strongly did it impress him that he determined to leave his brethren and lead a hermit's life near the submerged town, spending his days in prayer for the perished souls.

Persons fired with religious enthusiasm sometimes forget to have a due regard for the minor requirements of the law. This is exactly what the pious monk from Meaux Abbey did: he endowed his hermitage with certain property from the profits of which he and his successors could support themselves, but he quite forgot to get the king's licence for such a gift, which was, of

course, a gift in mortmain. Now all this happened in the closing years of Richard II's luckless reign, and so much were the crown officers busied in other and weightier matters, that no one ever found out what a terrible thing Brother Matthew had done till Henry of Lancaster had been proclaimed king. A heavy pecuniary fine might have been the result of the monk's hastiness, but for this fortunate circumstance. By an odd coincidence, Henry's landing in England had taken place in the Humber close to the new hermitage which, small and mean though it was, gave him a comfortable shelter for the night. When the affair came to be looked into, this was remembered, and Brother Matthew was not only speedily forgiven, but he and his successors had bestowed upon them the important privilege of the right to take any wreck cast upon the shore within two leagues of the hermitage.

The monk's successor was a certain Brother Richard Redbarrow, and a very good and charitable man he seems to have been: the constant wrecks around him, though they yielded him considerable profit, made his heart bleed for those who lost their lives by shipwreck. The possession of a full bag of treasure, or a cask of dainty wine, was no compensation for the sorrow which would fill his heart when the gray morning revealed a dozen or more lifeless bodies stretched upon the beach,

and he determined to do what he could to prevent or lessen shipwreck, and beside his hermitage he set to work to build a lighthouse.

Had Brother Richard possessed money enough to finish what he began, we might never have known of his Christian work ; but he had not, and in the year 1427 he petitioned Parliament to obtain from the king the grant of a small toll on the shipping entering or leaving the port of Hull towards finishing his 'beken' tower ; the cost of the light upon it he was ready to bear.

Parliament thought it an excellent plan, and so did the king. Brother Richard got his grant, and no doubt the lighthouse was built and did good service for many a year to come. But in time the sea encroached, acre by acre, till hermitage and lighthouse both disappeared, and in the general survey of monastic property taken at the dissolution, we find no mention of either one or the other.

But these inroads of the sea, these changes in the form of the coast-line, made the entrance to the Humber no safer. In Elizabeth's days the Spurn was an exceedingly sharp headland, stretching far into the river, and collecting around it a quantity of shifting sand and shingle, so that the sailors of Hull determined to petition the queen in favour of a lighthouse there which one of their own countrymen—the famous navigator, Sir Martin Frobisher—was seeking leave to erect at the

Spurn Point, or hard by it. No doubt Sir Martin's suit was opposed in the usual quarter, and before he could ride down the opposition he had been carried off by wounds from the Frenchmen's guns, and nothing came of his proposal.

After this, in 1618, his kinsman, Peter Frobisher, put forward the same suggestion, but it was again laughed at as a madman's scheme, and opposed and finally 'shelved,' so that ships got in and out of the Humber as best they could, the traders preferring risk to a settled tax.

The next proposals we hear of for a lighthouse at the Spurn came in the days of the Commonwealth; Sir Harry Vane—from whom the Lord Protector had not yet been delivered—submitted them to the committee for managing the affairs of the Trinity House¹, which committee actually approved the scheme. But the Trinity House of Hull, constituted as before, liked it not at all: a lighthouse at the Spurn, if erected, would not stand 'three springs,' and the only persons it could benefit would be an enemy seeking to enter the Humber by night; no native ship would do so mad a thing as that for fifty lighthouses.

These arguments are obviously weak, but somehow they managed to have the desired effect, and a light-

¹ The acting body of the Trinity House adhering to the late king, its labours had been transferred to a committee of the Parliament.

house at the Spurn was once more postponed till some years after the Restoration. Then a private individual, a certain Justinian Angel, built one, lit it, and applied to the king for leave to gather toll for its support. The opponents of the scheme now raved in vain : there was the light, and with it ships *did* come in and out of the Humber by night, and shipwreck grew to be the exception.

Charles II gave Angel his patent, remarking to Sam Pepys, then Master of the Trinity House, that as the patentee only asked for a *voluntary* contribution, it could be no hardship to anybody. Sam thought it wise to explain that, in so long opposing the scheme, the Trinity House had only done what it deemed its duty, to which the merry monarch replied that ‘caution’ was ‘always reasonable,’ and with that safe remark passed on.

There was nothing for it now but to influence as much as possible such shipowners as were willing to pay, against the light. The Trinity House seems to have thought the best way to do this was to circulate wild rumours of Angel’s huge profits ; we are glad now that these rumours were set afloat, for they drew from Angel a statement as to his expenses and management, which gives us a very vivid picture of his lighthouse ; this is what he says :—

At most other lighthouses—he is speaking of the ‘high’ or ‘upper’ lighthouse, they were generally in

pairs, a high light and a low light—the grate was fastened to a back like a chimney, and exposed only one way to the wind, namely, ‘that to the seaward,’ whilst in the low light there would be exhibited ‘two or three candles closed in with glass.’ But at the Spurn things were of necessity quite different. Here the fire on the high lighthouse must needs show ‘all round,’ and so it was entirely unscreened, standing upon ‘a swaype’ fourteen feet above the top of the lighthouse tower, and burning a vast amount more coal than a fire partly screened would burn; besides, the fire needed to be specially ‘bright,’ and so only ‘picked’ coal was used, which cost threepence a chaldron more than ordinary coal.

Then the cost of repairs was exceptional; in such an exposed situation the flames, fanned by a winter’s gale, blazed so fiercely that often three or four of the iron bars of the grate would be melted in a single night. Then the consumption of fuel would be enormous, and ‘four pair of hands’ was too little to feed the greedy furnace and keep it up to the requisite height.

If the ‘high’ light was costly to maintain, the ‘low’ light was—as a ‘low’ light—even more so: for at the Spurn this, too, was given by a coal fire instead of by the usual candles, and so cost as much ‘as two such lights elsewhere.’

In addition to all this, the carriage of coal to the Spurn Head was unusually costly, for the way from the nearest spot at which the Newcastle boats could discharge their coals lay, half of it, over soft sand, into which cart wheels sank deeply, and half over 'a sharp shingle' that lamed the oxen that drew it.

Light-keepers' salaries were, too, a heavy item; two men and a competent overseer were always needed at the Spurn, and on rough and boisterous nights much additional help was required.

Altogether, from the first lighting of the lights in November, 1675, to Christmas, 1677, the expenditure had amounted to £905, and the receipts to £948, a profit of £43 in two years and a month.

Charles II thought this was not out-of-the-way; he gave Angel further powers and facilities for gathering his tolls, and at last the grumbling and the moaning died away, not to be renewed till nearly a century later. Then there were worthier grounds for them: the owner was lord of the manor within which the Spurn lighthouses stood, and he would not move them to a position rendered necessary by the continued alteration of the sand banks.

Parliament was applied to, and with an airy disregard of the claims of private property, vested the lighthouse rights in the Trinity House of Deptford Strand—the

very body that had for so long fought against the erection of lighthouses at the Spurn at all. Armed with these rights the Trinity House promptly rendered the old lighthouses useless by erecting, in a position where they really assisted navigation, those at present standing, and they called to their aid, as architect and engineer, John Smeaton, who had just then won his laurels by the wonderful stone tower he had built on the Eddystone rocks.

Of the disused lighthouses, as they appeared some twenty years before they were rendered useless by Smeaton's buildings, we have a curious description, written by the then secretary to the Trinity House: the coals, he says, are placed in 'a bricket or cradle of iron,' which is suspended on a beam and hoisted or let down at pleasure. The upper light was then shown on the top of the tower, whilst the lower was placed against the tower on a platform a few feet from the ground. Perhaps it was this somewhat unusual arrangement with the beam that Dr. Johnson had in his mind when he described, in his Dictionary, a lighthouse as 'a high building at the top of which lights are *hung* to guide ships at sea'—certainly not a very accurate description of a lighthouse as the thing was then generally constructed and arranged.

CHAPTER VI

THE HUMBER TO THE THAMES



LEAVING the Humber, and coming southwards to the mouth of the Thames, we pass some of the earliest post-Reformation lighthouses erected—Winterton, where we have seen a light was proposed to be shown from the church steeple in 1585; Caister, Yarmouth, Corton, Lowestoft, Orfordness, and Harwich; at all which places, and many others, lighthouses were erected in the early part of the seventeenth century.

There was a lighthouse at Caister some few miles south of Winterton, set up about the year 1600; soon afterwards we have a quaint account of the way in which this was maintained. It did not aspire to the dignity of being a coal fire; the building was merely a meanly constructed wooden tower with a lantern at the top, lit with candles—or *should* have been lit with

candles: but mark the italics—*should*. How was it actually illuminated? A contemporary report shall tell us. ‘Often but one candle of six to the pound . . . or at the most two’ burnt in the lantern. This was insufficient: wrecks happened in consequence, and the ship-owners grumbled louder than ever at having to pay dues. As stated before, the lighthouse at Caister was in the hands of the Trinity House, and it must be said to the credit of that body that on learning of the defects, it did its best to remedy them.

An inquiry was held, and revealed a sad laxity of duty in the appointed keeper. He ought to have lived at the tower, but he did not. Such a residence, when we consider the position of the Caister lighthouse, must have been solitary and dreary enough, and we can scarcely wonder that the keeper left his employment and went to labour more congenial. But he was dishonest over his retirement: he did not put his intention into writing, but went off without notice, and deputed ‘the preparing, lighting, and watching’ of the candles to an old and decrepid woman who dwelt some miles inland, and who, as might have been expected, was unable to perform her task with regularity. To reach the lighthouse, she had a lengthy walk; and in the teeth of an easterly gale she found this more than her strength could bear; thus on many a winter’s night she

had to retrace her steps without accomplishing the object of her journey : so that often when most needed no light at all showed from the Caister lighthouse. A new keeper was appointed ; he was to live at the lighthouse, to light his candles—three in number—at sunset, snuff them, and replenish them as needful till ‘ fair day.’

Surely a lighthouse, well and regularly tended, was needed at Caister ! There was not, there is not, a more dangerous bit of coast on the eastern shore of England. Caister sandbanks rival the dreaded Goodwins in their terrors for the luckless ship that is driven upon them. Now, with a good system of signalling from the adjacent lightships, and with two or three well-appointed lifeboats, the loss of life is often considerable, and many are the risks run by the lifeboat crews in their gallant efforts to rescue the shipwrecked. Here is the story of one such risk, and it is typical of dozens more that have happened since lifeboats have been placed near Caister.

It was just midnight on March 11, 1875, when the schooner *Punch*, on her voyage from Newcastle to Dublin, ran upon the shoals off Caister. It was a ‘ dirty ’ night, pitch dark, and blowing hard from the east. The sands, partially uncovered at low water, are quicksands as the tide flows, and a ship once fairly driven on them has little hope of getting off again ; as for

her crew—well, there is now this hope for them, that the lifeboat-men will see the signals of distress and hazard their lives to save them. The crew of the *Punch* knew what the grasp of Caister sands meant, and up flared their signal fires so soon as she struck. The waves, as though eager to secure for the greedy sands their prey, broke over the vessel in quick succession and dimmed the fire; but there was a plentiful supply of tar and oil on board, and their signals blazed up again. Then the lifeboat-men saw it and hastened to them. As their boat neared the sands her crew could see, by the fire flaring on deck, that the hulk was gradually sinking down, and that there was a stretch of uncovered sand still around the ship. Before their eyes, almost within speaking distance, the *Punch* would be sucked into the sand, and with her the half-dozen men on board! There was but one thing for it—anchor the lifeboat to the sand and jump on to the shifting mass. Leaving a couple of men in the lifeboat, her coxswain, heaving-line in hand, leaped overboard, followed by a number of his crew, and went staggering and stumbling towards the wreck—at one moment only ankle-deep in water and the next high up to their shoulders. And so they waded on for a hundred yards in the fury of the winter storm. They called to the crew, and the crew answered them. Think what the feelings of those sinking men

must have been, their gratitude to their deliverers. One threw a line from the deck, and it was clutched by the foremost of the rescuers, and, a communication once established, the schooner's crew were one by one hauled through the broken water over the quicksand to the lifeboat, and with them the lifeboat-men rowed to shore. Yes, to shore, but not to rest! They had barely got to their homes when the cry was raised again, 'Another ship on the sands!' It was morning then, and back to the lifeboat they hastened, and a second time rowed out. Alas! their journey was in vain. Help had come too late, and only masses of tangled rigging, planks, and broken spars floated over the sands—the ship and her crew lay buried within them.

Oddly enough, we do not hear of any early lighthouse at Yarmouth. In the official catalogue of lights on the Norfolk coast the date of the first lighthouse of the Yarmouth group is that at Gorleston, said to have been established in the 'fifties.' But there was a lighthouse here nearly two centuries before; and Molloy, in his treatise on sea-law, in 1676, refers to the 'great and pious care' by King Charles II in erecting a lighthouse at Gorleston, or 'Goldston,' as he spells it, 'at his own princely charge,' from which expression we are, I suppose, to imagine that his Majesty kept up a lighthouse here at his own expense: the thing seems improbable

and requires confirmation before we can accept it as truth. Lighthouses in the neighbourhood at St. Nicholas Gatt were proposed and for a time established by Sir John Clayton between 1675 and 1678, and we find the seamen of Yarmouth still clamouring for them in 1692. In the seamen's petition the loss to shipping, for want of them, is very clearly set forth ; one petition says that as many as two hundred ships perished on the sandbanks there during the gale on one winter's night.

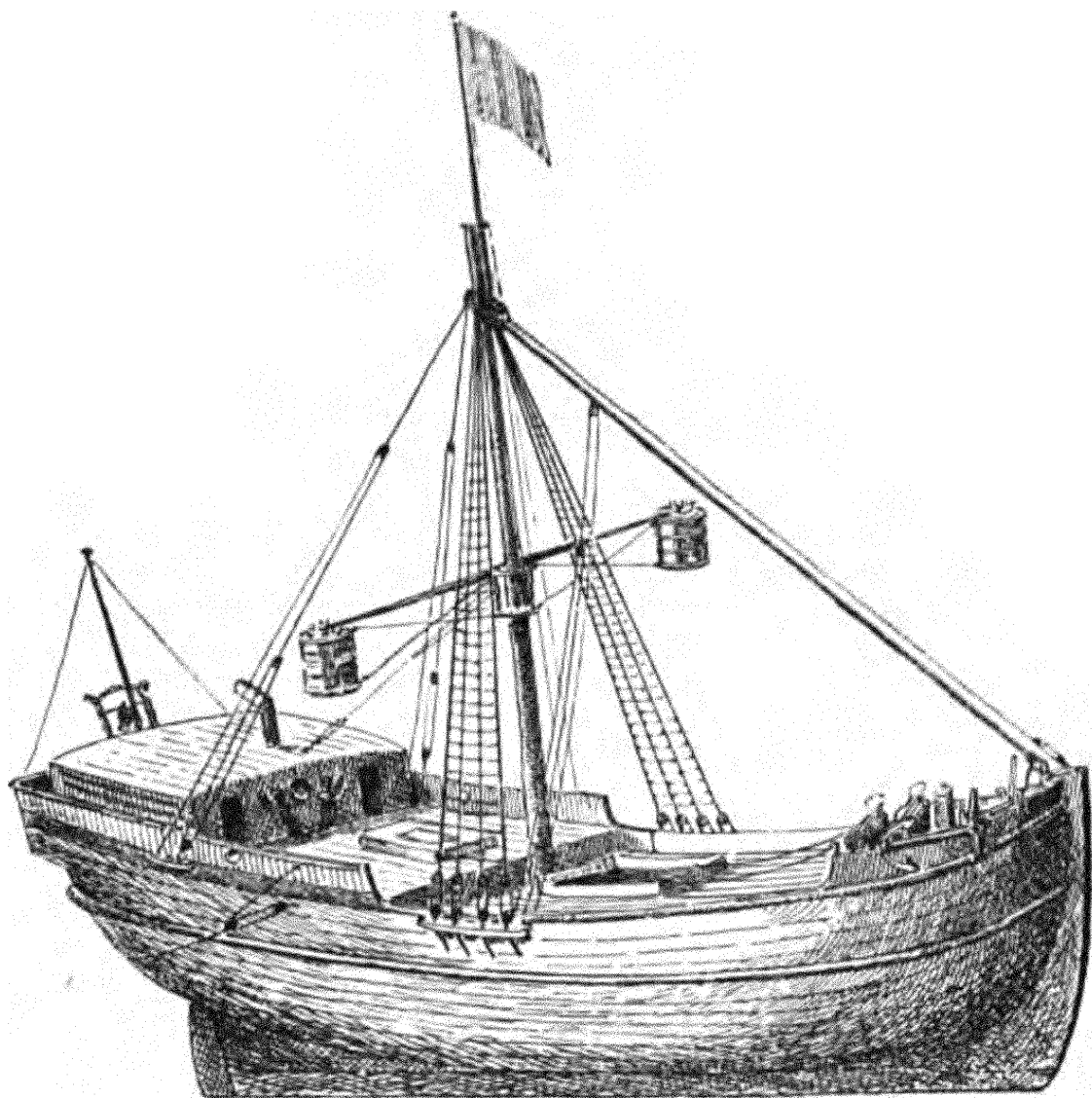
A lightship now marks the dangers of Corton sands, some few miles further south of Yarmouth than St. Nicholas Gatt. But Corton was one of the places at which Sir John Clayton proposed to erect a lighthouse long before. When the Trinity House had crushed all his other lighthouse projects he offered the corporation something handsome to approve of a light at Corton only, but it would not : multiplicity of lights, it said, confused the navigator, and its own lighthouse at Lowestoft did all that was needed.

At Lowestoft, in 1778, were made the earliest experiments with reflectors ; a thousand tiny mirrors were placed in the lantern, and with such success that the flame of the oil lamp appeared at sea, some four leagues off, like a huge globe of fire.

The lighthouse at Harwich is memorable for quite a different reason. It played—or rather was intended

to play—an important part in English politics. When at the eleventh hour James II and his advisers were trying might and main to ward off the Dutchman's coming, and when the Trinity House officials, acting under Pepys' orders, were busily engaged in removing buoys and altering the position of familiar coast marks, the small, or lower, lighthouse at Harwich was an object of consideration. It was—so went forth the order—to be 'removed' and 'set up in another place.' But how? The operation could not be *rapidly* performed, for the building was a solid bit of masonry, and all depended on haste. A happy idea at last struck some one: the Dutch ships would be as easily misled by an erection of canvas, and that, 'with the utmost secrecy,' could be stretched on a timber frame, carried to the place appointed, and set up in less than an hour, whilst a charge or so of gunpowder would at the same time level the real lighthouse.

Whether this was ever done we do not know: the Trinity House records which tell the first part of the story are silent as to that point; but if it was, it certainly did not serve the object in view, for the Dutch ships, when they came, steered a very different course, and, as we all know, landed in quite another part of England.



Crossing

MODEL OF THE FIRST LIGHTSHIP.
(From the Trinity House Museum.)

CHAPTER VII

THE NORE LIGHTSHIP



COMING southwards from Harwich, we are soon at the mouth of the great water-way to London and in view of the Nore light. This is the first lightship of which we have had occasion to speak in particular, though there are now many stationed along our eastern and northern coasts—one of them, that on the Dudgeon Sands, being almost as old as the Nore.

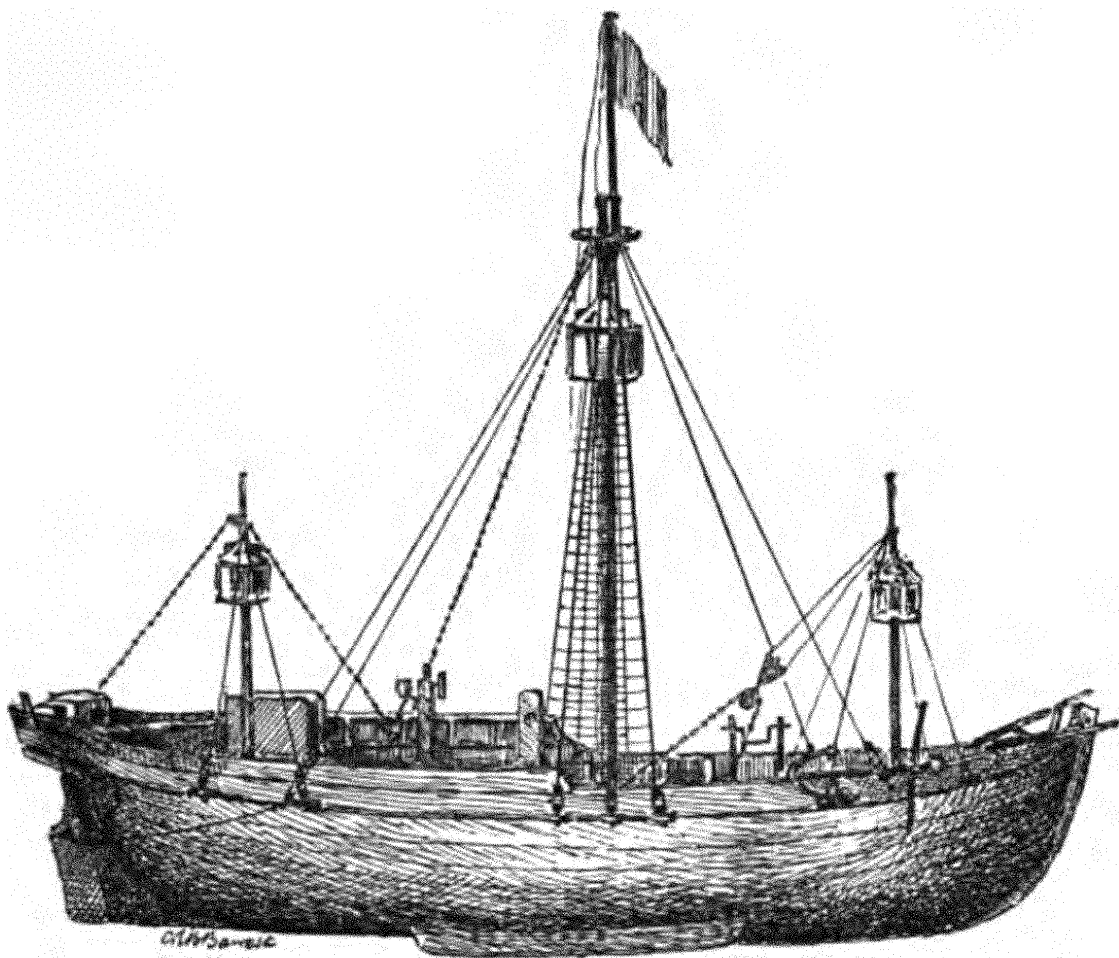
We have seen the spirit in which the Trinity House of 1674 regarded the proposals, made by a lighthouse speculator, to establish floating lights at the Nore and at some other parts; it regarded the proposition as that of a madman. Well, it sounds an odd opinion to us to-day, but really it is no more odd than the opinion expressed, sixty or seventy years ago, by men who knew

of what they talked, as to locomotive steam-engines and railway capabilities in general.

We do not hear of another proposal for floating lights at the Nore till 1730. Robert Hamblin had then devised a scheme for getting the whole of the lighting of the English coast into his own hands, and the dues therefrom into his own pocket. His plan was to fix floating lights at short distances from the shore, in such positions as would render the existing lighthouses absolutely useless. It was a bold stroke, and so far successful that he actually got his patent from the crown and established some of his lights, amongst them that at the Nore.

But his reign was short: the Trinity House addressed a powerful remonstrance to the law officers of the crown, the owners of private lighthouses joined in the complaint, and Hamblin's patent was speedily cancelled.

But before the cancelling he had parted with any rights he possessed under his general patent with regard to the lightships at the Nore and at one or two other points, and in 1732, the purchaser, David Avery, placed a lightship at the east end of the Nore Sands. After circulating in shipping circles very glowing accounts of the benefits which this light would yield to navigation, he began to ask for his tolls, and by a little judicious dealing with the Trinity House he managed to get that body on his



MODEL OF A LIGHTSHIP BUILT IN 1790.

(From the Trinity House Museum.)

side in doing so. This is what he did. He arranged that the Trinity House should itself apply for a new patent from the crown—not in general words, but simply for a lightship at the Nore—and that he should take a lease of this patent, when granted, for a term of sixty-one years at a yearly rent of £100. When we remember what the traffic in and out of the Thames was, even in 1730, we shall see that Avery must have made a good profit on the £100 a year he paid the Trinity House.

The lightship at the Nore turned out fairly successful. Of course the arrangements for securing her in her position were of a very primitive type. Even now, with the strongest of cables and anchors, a lightship will sometimes break away from her moorings and scud before the gale. That is why the United States Government is replacing lightships by pile-lighthouses wherever the thing can be done. But in 1732 these breakings-away were far more frequent, and the first lightship at the Nore broke her moorings twice in three months of that year.

As a consequence, the number of lightships around the English coast did not rapidly multiply. However, every few years saw some improvement in the anchoring arrangements of these vessels, and the benefit, the utility, of lightships—when once they could be trusted

to keep their positions—became more and more apparent. To-day we have between forty and fifty of them round the coast of England.

The lighting arrangements on lightships were also, at first, very rude and unsatisfactory. Small lanterns—each containing a cluster of tiny candles that needed to be constantly replenished—were suspended from the yardarm of the vessel's mast, and these, on a gusty night, were often blown out, and occasionally blown bodily away. Yet such arrangements were not altered till early in the present century, when Robert Stephenson invented the form of lantern at present used, which surrounds the mast of the lightship. Inside this lantern is a circular frame, on which are fixed Argand lamps with reflectors, and each light and each reflector swings, by means of gimbals, so that, let the lightship roll or plunge as she may, the light is always steady and kept perpendicular by its own weight.

We do not know with certainty what was the staff, or crew, maintained on one of these first lightships, but there were few lights to trim and manage, and there is reason to believe that, when everything with regard to coast lighting was done as cheaply as could be, there was but one man to perform the tasks. Surely the loneliness of his life is too awful to contemplate. Even at the Eddystone and other isolated lighthouses the

keeper was changed but seldom, and it is not likely that the lightship guard was oftener relieved.

The effect of such economical management must have been disastrous to the interests of navigation. Sudden death, illness, or accident might, at any moment, have rendered the single keeper incapable of lighting his lamps, and dire disaster to vessels, trusting to see the light, must, almost of necessity, have followed; but before long things were better ordered, and two men were kept in every lightship.

The immobility, so far as *progress* is concerned, of a lightship renders life upon one particularly tedious. Roll or pitch she may, but forward she never goes—that is, if all keeps well with her anchor and chains. It is of this that present-day dwellers on lightships most complain—the dull monotony of a life at anchor. Even the Flying Dutchman's penance had advantages over it; he, at any rate, witnessed continual change of scene, he was permitted to enjoy the rest of progress.

But monotony is about all that a modern lightship keeper has to complain of, and even that is reduced to a minimum by the latest regulations. A keeper nowadays has never less than three companions; the Trinity House boats pay him frequent visits, bringing fresh water, fresh victuals, and a supply of books and papers; and he can now, in many cases, by means of the tele-

graph or telephone, speak with the shore whenever needful. Besides, by her build, finish, and fittings, a modern lightship is, to a sailor, a really comfortable home. Each of these vessels costs between three and four thousand pounds to turn out complete and equipped for service.

Of course some lightship stations are much more lonely than others. The ever-passing stream of traffic in and out of the Thames renders the Nore one of the 'gayest' lightships on which to be stationed, and consequently one of the most popular. Life there is free from that singular and almost overpowering melancholy so wearying to the men at, say, the Seven Stones lightship, anchored midway between the Scillies and the Land's End; indeed, the two stations cannot be for a moment contrasted. You might as well compare life 'lived' in Piccadilly with life 'passed' in a by-road at Finsbury Park.

CHAPTER VIII

THE GOODWIN SANDS AND THE FORELANDS



FOUR miles seawards from Deal lie the Goodwin Sands, and the deep water between the two is known as the Downs—the great historic resting-place for ships, naval and mercantile, the scene of the gathering together of many a noble fleet of British war-ships, whose broadsides have helped to make England the mistress of the seas. The Goodwins shelter the Downs : that is their one good service, and surely the mariner pays dearly for it ! No more treacherous shoal exists than that ever-shifting mass, that greedy monster that lies beneath the surface of the water, and grasps in the clasp of death every luckless vessel driven within its reach.

Deep in the Goodwin Sands lie the wrecks of centuries, the treasure of many lands. And the stories of those wrecks, what stirring reading they would be were they recorded ! In the great storm of 1703—of which I shall speak later on in telling the story of the Eddy-

stone—thirteen men-of-war were driven on the Goodwins, dashed to pieces, and their crews engulfed in the rising tide. Now, in our own day, each succeeding winter brings some fresh piteous tale of disaster from the Sands, some grievous loss of human life which happens, despite the undauntable courage of the men who man the lifeboats stationed along the coast from Broadstairs to Dover. Our hearts bleed as we read of the lifeboat which, notwithstanding all that human skill and pluck can do, reaches the Goodwin Sands too late: there has been no unnecessary delay since the signal of distress was first noticed, no hanging back by the crew, no thought for their own safety. Simply the actual impossibility of reaching the wreck in time.

This is the story we read of yearly; and though it may fill us with sorrow for the sufferings of the luckless men and women on the wrecked ship, we can at least say, as we lay aside our newspaper, All was done that could be done to save them. Few, thank God, are now the occasions on which we cannot say this; but the loss of the Gutenberg, on the evening of New Year's Day, 1860, is one of them. It was a wild night, bitterly cold, and the snow fell so thick that her pilot could not see the light from the lightship, and she struck the Goodwins about six o'clock. Her signals of distress were seen from Deal, but there was then no lifeboat stationed

there, and the Deal boatmen telegraphed to Ramsgate, 'Ship on the Goodwins.' The lifeboat-men there were ready as usual, and they hastened, as was customary, to the harbour-master to get permission for the steam-tug to tow them out.

The harbour-master was an important person, and he felt the dignity of his office. Perhaps he did not like the unceremonious way the would-be crew had come into his presence; one sometimes forgets to be duly respectful when the lives of an unknown number of one's fellow-men are at stake, and may be saved by haste; any way, he heard this news from the breathless spokesmen without much visible sympathy. 'Have the distress-signals been noticed at Ramsgate?' he inquired. 'No,' cried the sailors, 'at Deal; Deal has telegraphed here, and we want your orders for the harbour-tug to tow us out to the Sands.' The harbour-master smiled. 'That, I fear, is not official intimation,' he said, and continued the discharge of important duties at his desk!

Ramsgate was astir! The official answer had somehow not been received by the knots of sailors who thirsted to save life with the admiration the harbour-master perhaps expected.

Further telegrams came from Deal at 8 and 9, that signals of distress were still going up from the Sands, and an angry crowd *demand*ed the use of the tug, that, with

steam up, lay in the harbour. 'Go in your own luggers, if you will go!' shouted the harbour-master, whose official dignity was now relaxing into official indignation; but he knew that was practically an impossibility.

Then, at 9.15, came the welcome cry, 'A signal from the South Sand lightship.' The benevolent harbour-master forthwith untied the red tape that held the steam-tug to her moorings; and towing the lifeboat behind her, she plunged into the storm. On she went, steaming her hardest towards the Goodwins, and as those on board her and on the lifeboat neared the Sands they saw the lights of the breaking ship; nearer still, and the cries of the perishing crew could be heard. The lifeboat is set free, her sail hoisted, and she makes for the Sands!

The lights disappear, the shouting ceases, and presently a faint light shines from the sea nearer to them. Then, through the blackness of the night, the lifeboat crew can see a ship's boat coming towards them; a rope is thrown, and she is hauled alongside the lifeboat. The men, five in number, drenched and exhausted, are taken on board: these are the remnant of the Gutenberg's crew of thirty-one, that for nearly four hours clung to their ship as the waves dashed her to pieces on the Goodwins, and were sacrificed to an official's 'sense of duty!'

But what about the history of attempts to mark with lights the dangers of what legend calls the once culti-

vated estate of Earl Godwin? These dangers were well known to the mariner of old, and have for long been sung in sea-song. But the ever-shifting nature of the sands left the lighthouse builder of bygone days without hope of the possibility of placing upon them a warning to navigators of their exact position.

However, 'fools rush in where angels fear to tread': the enthusiast and the mad speculator were often in evidence in the days of good Queen Bess. Those days of leaping and bounding prosperity that England then saw, as she followed new paths to fortune, encouraged such beings, and amongst them was one who came to court with a project to build a lighthouse on the Goodwins.

The projector was Gawen Smith; his proposals did not begin with this of which we have spoken. He had been an applicant for office before; a vacancy had happened in 'Her Majestie's bande,' one of the drummers having been gathered to his fathers, and Gawen considered he was just the man for the post, for he could 'sounde on the drumme' all manner of 'marches, daunces and songys.' Had it been the post of chief-engineer for draining the Lincolnshire fens, our friend would, no doubt, have been able to make out a good case for his own fitness for the appointment. Poor man! his application for the band vacancy was never answered, so far as we know; perhaps Secretary Cecil thought him a

better sounder of his own trumpet than beater of her majesty's drums!

But he was not daunted by failure to get an answer: in due course came the application which has made him of interest to the reader of these pages—the suggestion for a lighthouse on the Goodwins.

He tells Cecil that he has been 'down upon the Goodwin Sands,' in sundry parts of them, and though he found the place 'very dangerous,' yet by the May following he would be ready, if permitted, and if the queen would grant him the leave to gather toll—to build a beacon, 'fyrme and staide uppon the foresaid Godwyne Sande,' twenty or thirty feet above the high-water level; which beacon should, by night, 'shewe his fyre' for twenty or thirty miles, and be seen by day for hard on twenty miles.

It was no ordinary lighthouse that Gawen was going to build there. Should there—despite this wonderful erection—happen a wreck upon the sands, the beacon-tower would be an abiding-place for the shipwrecked, as it would furnish room for forty persons above the highest point to which the waves had been ever known to reach.

He had one other request, and when compared with the vastness of the undertaking, it was a modest one; it was that the queen would give him £1,000 when he should deliver to her hand 'grasse, herbe, or flower,'

grown upon this desolate, shifting mass of sand, and £2,000 when the soil should be so firm that his tower would bear the weight of cannon for the defence of the channel!

Cecil carefully folded up the application and endorsed it: 'The demands of Gawen Smith touchinge the placing of a beacon on the Goodwyn Sandes'; and there the matter ended.

Years went by, Gawen Smith died—probably a disheartened speculator; winter gales blew luckless vessels on the Goodwins; and the greedy shoal drank in life and treasure as before; but no project came prominently forward for indicating its danger till the year 1623. Then a more rational proposal was made, and made by men of a very different stamp from Gawen Smith. John, afterwards Sir John, Coke, a nautical expert, proposed means by which a light might be exhibited upon the Goodwins.

Unfortunately we do not know exactly what his proposal was, but that it was practical we may guess from the fact that the English and Dutch mariners approved it and were ready to contribute to its support, and it is almost certain that a moored vessel, showing a light by night, was suggested. If so, we have in this proposal the first suggestion of a lightship: the reader will see in a moment on what I base this theory.

Sir John Coke's scheme came to nothing, and a like

fate attended those put forward soon afterwards by Capt. Thomas Wilbraham and the Mayor of Rochester and others which were for the same kind of light, whatever that was; but in 1629—four years after Charles I's accession—almost the same persons petitioned the king for licence to light the Goodwin Sands. In this case their petition is extant, and we see what they propose. After setting forth the dangers of the sands in the usual terms, they state that they are ready, in order to warn vessels of those dangers, to maintain at their own costs, '*a light upon the main*' at or near the Goodwins, 'whereby every meanly skilfull mariner' could, on the darkest night, safely pass the place of danger. I think the expression 'upon the main' must here mean the main or open sea, especially as the words 'at or near the Goodwins' immediately follow: that expression cannot refer to the *mainland*, eight miles off at its nearest point, for lights at the two Forelandswere then already established, and the expression 'on the main' would not have been used if a tower built on the sand had been intended. There is, I think, but one way of interpreting this and the earlier proposals, and that is, that they were each of them for a floating light or lightship at the Goodwins.

Besides maintaining this nocturnal light, the petitioners undertook to constantly provide 'a sufficient company of strong and experienced men, with vessels, always in a

readiness to relieve such as by day, or night, through extremities of weather, should unhappily be forced upon the sands': presumably, then, more than one vessel was to be kept permanently moored at the Goodwins, each craft being provided with boats, and with such life-saving apparatus as was then known, so that assistance could at once be sent to any ill-fated ship that ran upon the Sands. In return for all this the petitioners craved leave to levy one penny from every English ship passing through the Downs and three-halfpence from every 'foreigner,' besides an allowance for salvage in respect to the cargo of any wrecked ship that the petitioners or their servants happened to rescue.

The petition bears no endorsement, so that we cannot tell what was done upon it: the proposal as to the payment of dues probably defeated it, especially as lights, for which a tax had been demanded, had been established only a little before at the Forelands. These were, neither of them, very elaborate buildings, nor, we should fancy, efficient lights: each was built of timber and plaster, and had at its top a lantern in which were stuck a few candles. The Trinity House offered a most strenuous and relentless opposition to the Foreland lighthouses, which were set up by Sir John Meldrum, and felt bound to inform King Charles that there was 'no necessity for such lights' and that an imposition of a rate for their support would be

a grievance to navigation: in times of 'hostility,' the Trinity House went on, 'such lights would be a means to light an enemy to land, and bring them to an anchor in the Downs'; and moreover, 'in a chase by night' ships would be brought to where the king's ships and our own merchantmen rode peacefully at anchor, and then these pursuing vessels might, on dark nights, by mistake board either those frigates or merchant ships without either having time to demonstrate what she was. True, it might be urged that, 'in time of hostility,' the Foreland lights could be put out; yet, meanwhile, they would so far do mischief as to acquaint strangers with our coast in every part; so that in time of war they might get through the channel by night without lights 'merely by their depths.'

The Trinity House at Dover had similar objections to such costly follies as lighthouses. 'We at sea,' it wrote, with professional contempt, 'have always marks more certain and sure than lights—high lands and soundings which *we* trust more than lights'; 'and,' continued these superior persons, 'the Goodwins are no more dangerous now than time out of mind they were, and lighthouses would never lull tempests, the real cause of shipwreck.' If lighthouses had been of any service at the Forelands, the Trinity House, as guardians of the interests of shipping, would surely have put them there!

The real objection to the Foreland lights—their dimness and general badness—was never once mentioned; the outcry against the lighthouses was by those who had to pay for them, the shipowners and merchants; and from their point of view good lights or bad were equally objectionable. Probably the king—who must have been getting quite used to these extraordinary outbursts of eloquence every time a lighthouse was proposed *anywhere*, and who was beginning to have a shrewd suspicion as to the motives that caused them—knew how much of this expressed alarm was genuine. He stayed, for a little time, Sir John Meldrum's patent, empowering him to gather tolls for the Foreland lighthouses, and then granted it, ordering his Admiral of the Narrow Seas to arrest vessels that would not pay.

We do not know if Sir John Meldrum, after this confirmation, improved his system of lighting; let us hope he did; but it is doubtful, for the same ramshackle towers, well patched with timber and iron, were not replaced with more substantial structures for more than sixty years afterwards. A new tower, of flint and lime, was set up at the North Foreland in 1694, and then a coal fire was used to light the lighthouse. This was soon after completely gutted by fire, and for a long time the only light shown there was a lantern, containing one candle, stuck on a pole!

After a while a tower of brick and stone was raised, and it is probable that some part of this forms the lighthouse we see at the North Foreland to-day ; then the owners went back to their coal fire again, and kept it up so badly that bitter complaints arose from those who worked the Channel trade. Inquiry was held, and it was found that the grates were but half filled with fuel.

This was scandalous, for the profits of the two Foreland lights had grown—I am speaking of the opening years of the last century—to be enormous. The Trinity House thought the outcry offered a reasonable pretext for acquiring possession of the lights, but the crown officers would not transfer the patent ; they only warned the patentee to amend his light, and he did so. Then, in 1727, the Trustees of Greenwich Hospital bought both lighthouses, and possession of them remained in that charity till the general transfer of lighthouses to the Trinity House, some sixty years ago.

One of the first things the trustees did was to close in the open coal fire at the North Foreland, and so save their coals. The plan succeeded no better there than at other lighthouses at which it was tried : shipwreck on the Goodwins became much more frequent, and sailors said that often they could see the outline of the Foreland before they got a glimpse of the fire on the lighthouse ; and so the lantern was taken off and the fire

was left to burn unshaded till 1790, when the tower was raised one hundred feet, to its present height, and a lantern lit with oil lamps supplanted the coal fire altogether.

Of the history of the South Foreland lighthouse there is not a great deal to record ; yet, from a scientific point of view, that lighthouse certainly demands attention, from the fact that many of what have been in turn regarded as the most approved methods of coast-lighting have been first put into practice there. It was suggested as an experiment station so long ago as 1729 : magnifying lenses were first used there in 1810. In 1853, Faraday made his initial experiments there with the electric light as a means of coast illumination ; and there—nine years later—the lime-light was first applied for a similar purpose. Having said this much we may leave the South Foreland light, for of its history and romance we know little, practically nothing.

But before we pass on to Dungeness lighthouse a word more must be said about the Goodwin lights. We left their history in 1629 very far from the date at which a light was actually placed upon them. Nothing came of the suggestion then made to indicate the dangers of the Sands by means of floating lights, and the existence of lighthouses on the North and South Forelands, for which heavy dues were payable, gave little hope of success to any project to light the Good-

wins. As a consequence we hear of no subsequent proposal for a lightship there till well on in the eighteenth century, that is, after the practicability of this form of coast illumination had been actually demonstrated at the Nore and the Dudgeon.

But the then proposers of the lightship at the Goodwins were only two poor pilots, who could not be expected to carry on a battle with so powerful an antagonist as the Trinity House. The secretary of that body, writing, about the year 1750, of the pilots' humane but ineffectual effort, congratulates himself that so crushing had been their defeat, that his Board was unlikely to be troubled again with such ridiculous and tiresome suggestions. The Trinity House, he observes, 'was not fond of them!'

However, times changed as the years went by: the Trinity House, and those for whom it spoke, grew larger-minded, had greater scientific knowledge, and were more public-spirited. Thus before the end of the century of which we have been speaking, the Trinity House had itself established a lightship at the Goodwins—the first of the three which now warn mariners of the presence of the Sands.

Of course these lightships are not as useful as light-houses; but it is pretty certain that to do what Gawen Smith wanted to do in the days of Queen Bess—reclaim

the Goodwins and build a lighthouse on them—is practically impossible. Projects for doing this came before the Trinity House in plenty during the first half of the present century, one being to enclose that part of the Sands called ‘Trinity Bay’ and form it into a harbour of refuge; and, according to the author of *Memorials of the Goodwin Sands*, the Trinity House itself, at the close of the seventeenth century, made trial borings, to great depths, to see if a solid bottom could be reached: it could not.

But although it may be impossible to build a lighthouse on the Goodwin Sands, it must not pass unnoticed that between 1840 and 1850 at least two temporarily successful attempts were made to erect what their inventors termed ‘refuge beacons’ on the Goodwins: one of these was a mast forty feet high, sunk into the sand in a strong frame of oak, on which mast was fitted a gallery—never less than sixteen feet above high-water mark. This gallery, so its inventor stated, was capable of holding thirty or forty persons. In it a supply of food and drink could be left in a properly protected case, and a flag, which the shipwrecked persons who availed themselves of the refuge could immediately hoist, and thus acquaint the coastguard on the mainland of their presence there. The gallery could be reached by means of a chain ladder from the sands, and a ‘basket

chair' was kept in readiness in the gallery, in which might be placed persons too exhausted to ascend the ladder; this would be easily lowered and hauled up again to the top. This wonderful erection stood for nearly three years and then disappeared—whether run down or washed away nobody knows. It would be interesting to learn if during that period the wonderful paraphernalia was ever put in operation, if any shipwrecked mariners availed themselves of the refuge gallery, and if so, whether or not they found a comfortable meal awaiting them!

On the whole, then—though it is perhaps dangerous to predict that anything is impossible—it may be stated as exceedingly improbable that the Goodwin Sands will ever be turned into *terra firma*, or that a lighthouse will be built upon them; and without penetrating into the secrets of the official breast, it may be taken as correct that such is the opinion of the present Trinity Board. Could such a work be carried out, its advantages would be, of course, enormous. As a fortification and place of defence of the Downs and Channel its value is incalculable, and that, as some of us may remember, was the opinion of our great commander, the Duke of Wellington.

CHAPTER IX

DUNGENESS LIGHTHOUSE



AFTER passing the Goodwins the pilot of the southward-bound ship can sail on with little to trouble him till he gets near Dungeness. That was a very 'nasty' spot till marked by a lighthouse; the surrounding flatness added to the dangers, for over the long stretches of shingle and sand the steeple of Lydd Church rose up clear and distinct, looking in the twilight to those at sea like 'the forme of the saile of some talle shippe'—so said the mariner of James I's reign,—which led the steersman to shape his course 'confidently' that way, with a result that, darkness closing in, his ship would run upon the far-stretching sands with but slender chance of getting off again in safety.

What light, if any, charity had maintained at or near Dungeness before the dissolution of the monasteries we know not; but certainly for long after it none was

placed there, and shipwreck to an enormous extent happened each winter; in one over a thousand lifeless bodies of shipwrecked victims were collected at and near the 'nesse,' and merchandise to the value of £100,000 perished there.

No wonder, then, that when, in the very early years of the seventeenth century, lighthouse building began as a financial speculation, the speculators hit upon Dungeness as a spot at which a lighthouse was necessary and expedient. And it is wonderful to find that arguments were seriously put forward against this project.

A little prior to the year 1616 Sir Edward Howard, one of the king's cup-bearers, built a lighthouse at Dungeness, and petitioned the crown for leave to gather toll for its support. The Trinity House offered an uncompromising opposition; nevertheless James I gave Sir Edward the licence he sought. But Sir Edward found that the dues were paid with reluctance, and was glad, ere long, to part with his interest in the lighthouse to one William Lamplough, Clerk of the King's Kitchen, on whose behalf the crown, by its customs officers, interfered, directing that the tolls should be paid.

That was too much for the shipowners and the Trinity House. They were, in 1621, eagerly promoting a Bill in Parliament for the 'suppression' of the lighthouse, which they described as a nuisance to navigation; but

Parliament would not interfere with the king's grantee, and the end of it was that Lamplough was told by the crown that he must keep a better light at Dungeness than he had lately done. The remonstrance was, no doubt, needed ; for it seems that the coal fire which at first had illuminated the lighthouse had been replaced by a few candles, which were kept badly 'snuffed' and gave a wretchedly poor light.

But the opponents of lighthouses did not rest with the improvement in the lights. The Trinity House continued to excite opposition, and the corporation of Rye—quaint, sleepy old Rye, then very wide awake to its own interests—seems to have considered it a favourable opportunity for possessing itself of some one else's property without paying for it. It remembered that the first idea of a lighthouse at Dungeness emanated from a townsman of Rye, and begged the gentleman at Lincoln's Inn who fought their legal battles for them, to draft a Bill to be prosecuted in Parliament for vesting the title to the lighthouse in the mayor and jurats of Rye, who promised to bestow the profits on the repair of their much decayed harbour. That man of law was also a man of the world. In acknowledging their instructions, he advised the jurats to 'make Mr. Speaker' their 'friend'; he evidently thought that so doing assisted Parliamentary procedure considerably!

Perhaps the jurats neglected this sage advice ; perhaps the price of friendship was too high. The Bill was drafted, the man of law did his part, but there the matter ended ; the Bill remained a bud, it never blossomed into an Act, and Lamplough's patent again resisted attack ; he, in 1635, pulling down the then existing tower, and building one altogether more substantial, that stood till a century ago, when the lighthouse now there was erected.

We hear no more of the 'hindrance' and 'inconveniency' of Dungeness lighthouse after this ; its popularity was general, so much so that when, in Cromwell's time, the Earl of Thanet, who was the ground-landlord, threatened the then owner, whose rent was in arrear, 'to pull downe' the structure, the latter did not pay, he only appealed to England's Protector, who held that it was not a fitting state of affairs that 'the safety of many lives and of the State's ships should be left to the will of the Earl of Thanet'—and he granted the owner protection.

After the Restoration there was a deal of squabbling over, and confusion about, the title to Dungeness light. The former owner had forfeited his right to it for adhering to the crown, and now the crown was once again a power in the land, and the 'Parliament man,' to whom the lighthouse had been given, would not quit,

alleging a title by purchase ; but into all that the reader need not go. The only point in it that will interest him is that at least one, probably more, of the Winstanley family had an interest in the title. Can these Winstanleys have been ancestors of Henry of Eddystone fame? If so, then we have, perhaps, a clue to what gave him the idea of erecting a lighthouse as an object of profit.

A coal fire continued to light Dungeness till the completion of the now existing lighthouse, 110 feet high, in 1792. Then eighteen sperm-oil lamps took the place of the flickering fire, and shone steadily out to sea. This third lighthouse at Dungeness was built under the direction of Wyatt, after the model of Smeaton's lighthouse on the Eddystone. It now stands more than five hundred yards from the high-water mark, though when first it was built, it was barely a hundred, so rapidly has the neck of shingle grown.

This increased distance was becoming somewhat misleading to passing ships, so the Trinity House has placed a small revolving light nearer the sea, and in connection with it a siren fog-horn, which latter was a present from America. The utility of the fog-horn is great, though it renders a foggy night spent in the neighbourhood of Dungeness anything but tranquil.

But then, not many people—that is, people unused to the songs of the modern sea siren—are likely to spend

a night at or near Dungeness. True, there is now a railway to it, and there are a few houses built around the lighthouse. These are tenanted by people whose work is in some way connected with it, with the coast-guard duty, with Lloyds' signalling station, with the new lifeboat, or with the Dutch 'Consulate,' an ambitious title bestowed upon a grocer's shop whose fortunate owner happens to have a patent from the Netherlands Government in connection with signalling vessels of that nationality that pass the 'Ness.' These people *are*, probably, pretty well used to the siren's cries, which are particularly frequent during autumn and winter nights, when fogs hang in the Channel.

Some twenty years after the present lighthouse was built, a violent storm, accompanied by thunder and lightning, swept round it, and the lightning, striking it, cracked it in such a way that it was at first thought necessary to pull down the whole structure and set up a fresh building in its stead. But the cracks were carefully filled up with cement, the tower was bound round with iron hoops, barrel fashion, and now it stands as firm as ever. If it is taken away, it will be because Nature's work in lengthening the shingle banks renders it useless where it is.

CHAPTER X

ST. CATHERINE'S POINT TO THE EDDYSTONE



HERE is not much to say about the lighthouses along our southern coast between Dungeness and St. Catherine's, in the Isle of Wight; but the lighthouse at this latter place has an interesting history.

What now remains of the ancient building is a stone tower, octagonal without but square within, which consists of four distinct stories; the two lower were entered from an annexe building, whilst the two upper were mere stages reached by ladders. The beam-holes may still be seen, and they show that this was the arrangement. Two entrances to the tower remain—low and narrow doorways, one exactly over the other; the upper being the narrower of the two. The basement is lit by a couple of square-headed windows, not very wide, with arched lintels in the inner face.

Such is the ancient lighthouse of St. Catherine's as

we see it to-day ; certainly a picturesque ruin, and certainly possessed of interesting and romantic associations. The spot was already a hermit's cell in the year 1312, when the Bishop of Winchester admitted Walter de Langeberewe to 'the hermitage on the hill of Chale, dedicated to St. Catherine the Virgin.' Whether or not it was then part of the hermit's duty to light and trim a lamp in his hermitage to warn vessels of the presence of St. Catherine's Point, hard by, we do not learn ; but we know, now, that this was no unusual task for the occupant of a hermitage.

Two years after Walter's admission, that is, in the winter of 1314, a ship—one of a fleet chartered by some merchants of Aquitaine to bring over a consignment of wine into England from the vineyard of a monastery in Picardy—went ashore near the hermitage, and soon the force of the waves dashed her to pieces, scattering her cargo, which was, most of it, washed ashore. Her crew escaped safely to land, and then gathered together as many of the casks as they could, which—thinking that the owners would imagine all had been lost with the ship—they proceeded to dispose of, for the best terms they were able to make, to the inhabitants round about.

But in process of time the true story of the wreck travelled over the Channel and reached the ears of the merchants of Aquitaine, who forthwith brought an action

in the English courts against the sailors and those who had bought the shipwrecked cargo. In the end damages were awarded to the merchants, and the incautious purchasers supposed that the matter had been brought to a conclusion. But it was not so ; the Church—the monks in Picardy—had been wronged, for the wine really belonged to them ; the merchants had only the consignment of it ; and so the pope interfered and held that the purchasers must atone for their illicit trading. He decided what form the atonement should take : Walter de Godeton, one of the largest buyers, was to establish in the hermitage of St. Catherine a priest who would offer continual prayer for those perished at sea, and he was also to build a tower adjoining the hermitage, from which a light should nightly be displayed to warn passing ships of the danger of St. Catherine's Point. The ruin which we see to-day is evidence that this part of the papal direction was duly carried out. What was the subsequent history of this lighthouse, we do not know ; but at the general sweeping away of hermitages and oratories this useful light seems no longer to have been maintained.

In the seventeenth century, and again in the eighteenth, schemes were set on foot for re-erecting a lighthouse near the ruined tower of St. Catherine's, though none was actually established at the spot till just at the end of

the last century. That is the date at which the lighthouse now standing there was erected—a lighthouse famous throughout the maritime world for the extraordinary brilliancy of its light, given by electricity.

Weymouth and Melcombe Regis were important ports during the Middle Ages, and it is possible, nay probable, that some system of guiding incoming vessels by night existed there in early times; but if it did, all trace of it is lost. Portland Bill seems a natural place for a lighthouse, yet the first we hear of one there is quite at the beginning of the last century, when Captain William Holman's petition to erect one was submitted to the Trinity House.

The board considered that at the spot suggested the land was so high and the water so deep, 'to the very shore,' that lights were needless; adding that the duty proposed would add to the already heavy burdens borne by the shipowners. The report concludes with the argument, used before in other cases, that had lights been needed at Portland, the board would have suggested them. Not perhaps convinced with this method of argument, the corporation of Weymouth and the seamen of that port again urged the actual necessity for a lighthouse. Their petition and those that succeeded it were, however, 'shelved.'

But the value of lighthouses was getting to be too

widely appreciated for a scheme like that at Portland to be crushed, because it was thought that 'navigation' paid enough for light dues already. The seamen clamoured and raised public opinion on their side, and so the Trinity House thought the best thing to do was for itself to propose lighthouses at Portland, which it did, and obtained a patent on May 6, 1716.

The superior economy of the 'closed' fire-light was then, as we have seen in other instances, attracting attention, and the fire at the higher lighthouse at Portland was arranged on that plan; but it did no better there than elsewhere, and in 1731 we find the mariners 'who used the western trade' urging the Trinity Board to 'open' the fires on the lighthouses there, and allow the smoke to escape, instead of dimming and clouding the glass.

But probably ill-keeping had as much as anything to do with the badness of the lights, which was frequently a subject of complaint by nautical men. In 1752 we get a curious picture of the condition in which the lights were maintained: two brethren of the Trinity House, who had been sent to consider the position of a proposed lighthouse at the Lizard, thought well to inspect those at Portland, and approached them on a summer's evening by sea. 'It was,' they say, 'nigh two hours after sunset before any light appeared in either of the lighthouses.'

Then, in the lower light, there came a faint glimmer, which continued for about an hour, and ceased. Half an hour after, a light appeared in the upper lighthouse, and gave a very fitful light, only showing at intervals for the first hour, and then 'gave a tolerable good light,' though not so steady as the lower.

The two brethren asked the captain of their boat if this state of things was the rule or the exception, and received an answer that the ill-keeping was the rule; the lights never showed in time, and often not all through the night. It must be said to the credit of these two brothers that they suggested that the captain and his friends, who 'used the coasting trade,' should memorialize the Trinity House on the subject.

West of Portland, none of the other headlands from that, as far as Plymouth, were marked by lighthouses till within a hundred years ago—that is to say, as far as we know. What may have been the case before the dissolution of the monasteries cannot now be definitely ascertained; there are many ruined chapels along the coast between these two points, and there is a legend connected with that which stands on the hill above Torquay, to the effect that it was founded by a sailor who had been rescued from shipwreck near the spot, and who—as a thankoffering for safety—gave money to support a small band of monks from Torr Abbey to

keep a light there for the benefit of ships going up and down the Channel.

But when we reach Plymouth we are practically opposite the best known lighthouse in England, the Eddystone. The history of this isolated building does not perhaps go back very far ; yet it is certainly as interesting and full of incident as that of any of which we have yet spoken.

CHAPTER XI

SUGGESTIONS FOR A LIGHTHOUSE ON THE EDDYSTONE—HENRY WINSTANLEY



THOUGH comparatively modern, the history of the lighting of the Eddystone rocks, if we begin it with the *suggestions* for such a laudable scheme, commences a good deal earlier than many people imagine; that is to say, it was *not* originated by Henry Winstanley. On March 1, 1665, the Duke of York, as head of the Admiralty, considered and referred to the Trinity House a petition from Sir John Coryton and Henry Brouncker for leave to erect 'certain lighthouses' on the south and south-west coast of England, which was at that time entirely unlit. They suggested placing 'coal-fire lights' on the Scilly Islands, the Lizard, Portland Bill, the Start, at St. Catherine's in the Isle of Wight, and on the Eddystone!

The scheme, save for the proposed lighthouse at

the Lizard, was a new one, and the suggestion to light the Eddystone rocks, thirteen miles from land, was an entire novelty; it had not been proposed in post-Reformation times, and the most devotional and adventurous monk or hermit can surely never have looked upon those wave-washed rocks as a possible home, however much their loneliness might have attracted him.

When the Trinity House came to consider the proposal, the lighthouse at Scilly was that generally approved: the alternative proposals had then dwindled down to one, namely, that for the Eddystone. The brethren 'well knew' that the spot—'the Edie Stone,' as they call it—was one on which the projected work 'could hardly be accomplished'; but they were sure that, 'if a lighthouse be settled upon the Edie Stone, it might be of as great use as other lights in his majesty's kingdoms.' As to what was proposed to be gathered for support of this light, the Trinity House considered that 2*d*. a ton from vessels that would have its benefit would be amply sufficient, and the brethren held that 'the natives of his majesty's kingdoms' should be, by authority, free from paying anything at all; if these terms were agreed to, they had nothing to say against a lighthouse at the Eddystone.

Here then, in 1665, we have an interesting expression

of opinion as to a lighthouse on the Eddystone and—as we have said—the earliest proposition for such a building. Perhaps the proposers, on reflection, considered their scheme too adventurous, too costly to allow of possible profit; at all events nothing further was done in the matter of any of the lighthouses suggested.

But the commerce of Plymouth, and its importance as a seaport for the New World, were then growing year by year, and the number of vessels to and from America and the West Indies that had to run in jeopardy by reason of the Eddystone shoal was very rapidly increasing. We are not, therefore, surprised to find another scheme for a lighthouse on these rocks put forward at no very distant date.

It was presented to the ‘Court’ of the Trinity House, and came under consideration on February 11, 1692. The minute of the proceedings reads as follows:—

‘Proposalls of Walter Whitfield, Esq^r, read. Where, under the authority of the corporation, he will undertake, at his own charge, to erect a lighthouse upon Dunnose, and to secure the Eddistone from being obnoxious to the navigation, upon such conditions as to the allowance for the charge of setting upp and maintayning thereof, and a share of the profitts arising therefrom, as shall be agreed on; he being, besides, to be at the whole

trouble and charge of obtaining subscriptions and of procuring and passing the King's letters patent for the same. Which said proposals having been considered and debated, it was the opinion of the Board that a light upon Dunnose would be unnecessary, if not altogether useless; but, on the contrary, one upon the Eddystone would be of great use and benefit to the navigation. And thereupon it was ordered that he should be desired to explain himself, whether he meant the setting a lighthouse upon Eddystone: and if so, what he estimated his charge thereof would be, and what he would be content to take from the navigation.'

This is the record of the first step taken towards establishing the famous lighthouse at the Eddystone, with which, hitherto, the name of Henry Winstanley has been alone associated. Who was Walter Whitfield, where he came from, what was his profession, and what led him to turn his mind to lighthouse erection, we do not know; but it is certain that, as he soon after explained, it was by means of a lighthouse on the Eddystone that he proposed to indicate the dangers of those rocks; and though we may rightly regard Winstanley as the *builder* of the first Eddystone lighthouse, we certainly cannot properly regard him as the *projector* of the scheme. The credit for this must be given first to those who suggested it in 1665—Sir John Coryton and

Henry Brouncker—and secondly to Walter Whitfield, whoever he may have been.

In his 'explanation'—offered in March, 1692—Whitfield entered into more detail as to what he proposed with regard to the Eddystone. It was that he should build there 'a substantiall lighthouse' wholly at his own charge, on condition that the Trinity House would be 'assistant to him therein' and allow him the entire profits for the first three years, and then one half the clear income for the term of fifty years; on the expiry of this lease, the 'sole profit' to revert to the Trinity House, in whose name the patent was to be applied for. The proposal was judged 'so reasonable' that the board immediately accepted it, with a proviso that Whitfield should pay them twenty shillings a year for the first three years of his term.

By the middle of June, 1692, preliminaries had been so far settled that the petition to Queen Mary—William III was absent abroad—for the grant of a patent for a lighthouse at the Eddystone had been placed in the hands of the Earl of Pembroke, then master of the Trinity House, for presentation to the queen. The earl duly gave it in; on the 20th of the month it was referred to the law officers of the crown, and they reported in its favour on the 11th of July.

But, for some reason, the patent was not granted till

two years later, June 20, 1694, and after that there was another mysterious delay of two years before anything further was done ; then, on June 10, 1696, another agreement was entered into between Whitfield and the Trinity House. There are some important differences between the terms of this agreement and that of 1692 ; they are far more advantageous to Whitfield, who is to enjoy the entire issues of the lighthouse for five years, and the moiety for fifty. Directly after this last agreement, the lighthouse was commenced—not by Whitfield at all, but by Henry Winstanley.

The delay in the actual grant of the patent, and then—that granted—in the commencement of the work, not by Whitfield but by Winstanley, is noteworthy, and points to this : Whitfield, on receiving intimation that the sought-for patent would be granted, made some preliminary experiments on the Eddystone ; these so far convinced him of the hazardous nature of the undertaking that he hesitated to take up the patent, but at length did so. He then made further experiments, which confirmed his estimate of the dangers and difficulties of the work, and he was, perhaps, induced to abandon it on Henry Winstanley, more venturesome and enterprising than himself, stepping in and offering to erect the building if more favourable terms were conceded. This, likely enough, is the explanation of the delays and of the

second agreement between Whitfield and the Trinity House. Of an agreement between Winstanley and Whitfield I have failed to find any trace; but it is probable that one was entered into; at all events, there is the authority of a contemporary document at the Trinity House for stating that Winstanley himself finally undertook the erection of the Eddystone lighthouse, under the authority of the Trinity Board, *at his sole expense*.

Let us pause for a moment in the narrative of the Eddystone's history, and consider what is known of Henry Winstanley. He was born, probably, at Littlebury, a mile from Saffron Walden, in Essex, about the year 1646. The names of his parents are not known, but one of his brothers was Robert, the author of *Poor Robin's Perambulations from Saffron Walden to London*. Of Henry's early life and education we have but slender particulars. That he travelled abroad we may judge from a statement made by himself that he had *seen* the most renowned palaces of France, Germany, and Italy; and the probability is that his tour was undertaken with a view to obtaining proficiency in art—a profession in which he was certainly successful. Both as a draftsman and an engraver he distinguished himself, and worked more with 'an eye to the main chance' than most persons gifted with artistic power; for he appears to have selected



PACK OF PLAYING CARDS DESIGNED BY WINSTANLEY.

subjects for his labours that would attract the observation of, and appeal directly to, the wealthy. He engraved the Manor House at Wimbledon, and dedicated his work to its opulent and noble owner, Thomas Earl of Danby ; he drew and engraved a vast picture of Audley End House, of which building he was, in 1694, clerk of the works, and he sent his picture, with a characteristic letter, to the Earl of Suffolk : that is the letter in which he refers to his early travels on the Continent. To mention one of his minor productions as a draftsman, there is now amongst the collection of playing cards at the British Museum, a pack designed and executed by Winstanley.

Besides being an artist, Winstanley distinguished himself in the science of mechanics, though the particular branch of that science in which he seems to have laboured was rather of the order to astonish than to yield profitable scientific result. His house and garden at Littlebury bristled with mechanical contrivances of every description. If you chanced to tread upon a particular board in the passage, forthwith a door at the end of it flew open, and out sprang a skeleton and stood before you ; as you sat yourself comfortably on a seat in the summer-house, before which was a duck-pond, the seat on which you sat was promptly swung round into the centre of the pond. In London he exhibited some of his

contrivances with considerable monetary profit, and his moving wax-works held their own at Hyde Park Corner till 1709.

Whatever wealth he possessed came to him either by some of the means described, or by inheritance. Jean Ingelow's sprightly poem about the Eddystone lighthouse, beginning,—

‘ Winstanley's deed, you kindly folk,
With it I fill my lay ;
And a nobler man ne'er walked the world,
Let his name be what it may,’

tells how the ‘ lovely ladies ’ flocked to his London shop, where he followed the trade of a mercer, and anxiously inquired after the arrival of his homeward-bound ships, bringing the fabrics in which they yearned to clothe themselves ; but the poet here follows an error into which many writers have fallen. There is no evidence that Henry Winstanley was a mercer ; so that, whatever circumstances determined him to put a lighthouse on the Eddystone, it was not the loss of one of his own ships with a costly cargo of rich novelties in stuffs from abroad ! Rudyard, the architect of the *second* Eddystone lighthouse, *was* a mercer, whose shop was on Ludgate Hill—hence probably the mistake arising from a confusion of the two men.

So much for the personal particulars connected with Henry Winstanley ; in the next chapter we will resume the history of the actual construction of the Eddystone lighthouse, about which we have much more definite information.

CHAPTER XII

THE FIRST EDDYSTONE



WINSTANLEY tells us that work was commenced in 1696. Government so far smiled upon the undertaking that the guardship *Terrible* was appointed to accompany both Winstanley and his men on their journeys between Plymouth and the rock; the log-book and journal of this vessel afford us authentic details of the progress of the building. On Saturday, June 6, we find that Captain St. Loe and 'the Engineer' were taken from Plymouth to the Eddystone. But their stay on this occasion was of short duration. The regular work began on July 14, and the plan seems to have been to bring the *Terrible* to an anchor at a short distance from the Eddystone, and then to despatch Winstanley, and such workmen as he took with him, in the long-boat, to the rock, leaving them to work all day and fetching them back at night; such

entries as these in the log being typical of the rest: 'July 15—proving calm, sent the Engineers (sic) by long-boat to work; we lying by, off and on, all day. At night they came on board us again. 16th, at 4 a.m., sent the long-boat with the Engineers to the stone again, returned at night,' and so on. The *Terrible* was, except when pursuing some French privateer that chanced to come in sight, in pretty constant attendance, Commissioner St. Loe often coming out from Plymouth to visit the work. Not unfrequently the man-of-war lay off 'the stone' all night. Except for an occasional rough day, which prevented Winstanley and his men landing, work was kept on continuously till August 15, when the *Terrible* was ordered to Ushant, and we hear no more of the works that year.

Winstanley tells us something of what this first year's work comprised. 'The first summer was spent in making twelve holes in the rock, and fastening twelve great irons to hold the work that was to be done afterwards.'

It was his hope to finish the Eddystone lighthouse in the second year's work—that is, if he could get adequate assistance from the naval authorities at Plymouth. It was—so he told the Trinity House, and the Trinity House told the Admiralty—his intention to begin work so soon as the calm summer days per-

mitted it. And on June 30, 1697, the commissioners of the Navy wrote to Commissioner St. Loe informing him of the fact, and directing 'all possible encouragement and assistance' to be given 'for the effecting an undertaking that may lead to so much public good, by means of the guardship *Terrible* and her boats and men,' not only for the carrying off and bringing on shore, when occasion should require it, the persons employed in this work, 'but for defending them from any attempts that may be made by the enemy for obstructing the same, unless the guardship and her boats be otherwise employed on his majesty's service'—in such case some other man-of-war at Plymouth was to take the *Terrible's* place. This it seems was an additional favour granted at Winstanley's request, since, by want of an arrangement of that kind, a great deal of valuable time had been lost in the past.

Now let us see what the log of the *Terrible* for 1697 has to tell us. Presumably Winstanley and his men had been taken to the Eddystone prior to June 14, on which date we find the *Terrible* 'standing off' the rock, and guarding it; but we have no note of her having landed any one upon it. The next two or three days were spent on similar duty, the vessel anchoring each night in Cawsand Bay, and proceeding to the Eddystone at daybreak. On June 25, Commissioner St. Loe came

on board and the *Terrible* at once sailed with him to the fleet cruising in the Channel, returning to Plymouth Sound at night. From the 27th to the 30th she appears to have been fog-bound off Fowey, and here we may leave her to return to what was meanwhile passing on the Eddystone.

It would seem that Winstanley and his men had, this year, not returned at night to the guardship, but had slept on the rock, the *Terrible* returning each morning to guard them ; but, as we see on June 25, St. Loe, without following his instructions by making other provision for watching the Eddystone, should the *Terrible* be otherwise employed, had put himself on board the guardship and sailed to the fleet. On returning to Plymouth she appears to have endeavoured to resume her position off the rock, but, in the fog, missed her way, and finally cast anchor, much to the west of it, off Fowey, and here she remained for the next three or four days.

This was a grand opportunity for the French privateers. Probably on the first day of the *Terrible's* absence, one of their vessels, 'a small French challoope,' as she is called, sent her boat, manned with thirty armed men, who, landing on the rock, soon overpowered Winstanley and his handful of labourers, and forcing them into the guardship's boat stripped them stark naked,

cut them adrift, and carried the engineer back to the privateer, which, on taking all on board, steered away to sea¹.

How the luckless workmen in the Terrible's boat got back to shore we do not know, but by some good fortune they must soon have done so, and have given intelligence of what had happened ; since, within a few days—namely, on the afternoon of the 28th—information of this affair had actually reached the Admiralty. On the following day, Josiah Burchett, the secretary, addressed an apparently well-deserved rebuke to St. Loe :—

‘ ADMIRALTY, *June* 29, [16]97.

‘ SIR,

.

‘ The Board are surprised to heare of the Enginer who was erecting a Light House on the Eddystone being taken away by a French boate and carryed to France, and the more soo because the order sent you relateing to this matter particularly directed that they should have the assistance of the Terrible guardshipp, together with her boates and men, when she was not employed on other necessary services, not only for carrying off and bringing the workmen a shore, but for

¹ This is the incident attributed by Smeaton and others to the building of the second lighthouse on the Eddystone.

defending them from any attempts which might be made on them ; and it is the direction of their Lordships that you doe let them know how it comes to pass that these people had not a sufficient strength to defend them from the enemy according to the said orders, and you having been short in the relation of this unhappy accident, the Board would have you informe yourself, as well as possibly you can, how this whole matter happened and give them a particular account there of.'

More to the point than this inquiry made of Commissioner St. Loe, was the request made by the Admiralty on the following day to the Commissioners of Sick and Wounded, that they should get Winstanley exchanged 'as soon as possible may be.' This was apparently done, and the prisoner, none the worse for his short captivity¹, was at work upon the Eddystone with his former workmen by July 6, when the Terrible made an early start from Plymouth and landed those whose business took them to 'the stone' by eight

¹ Wright's *History of Essex*, vol. ii. p. 179, says that Winstanley was offered a liberal salary by the French king to remain in France, but refused the offer. This is somewhat inconsistent with the statement that the old king, Louis XIV, censured the officer of the privateer that had made the capture, and ordered Winstanley's immediate return, saying he was at war with England, but not with humanity, and that a lighthouse on the Eddystone would be a benefit to mankind at large.

o'clock. Narcissus Luttrell makes two references to the event, one on July 3, 1697: 'The Lords of the Admiralty have sent to France to have Mr. Winstanley, the engineer, who was taken off the Edystone rock, near Plymouth, exchanged according to cartell.' Ten days later he records the fact that Winstanley had returned, 'being exchanged according to cartell.' Narcissus, it may be here observed, himself became personally and financially interested in the Eddystone later on. The rule seems now to have been for the Eddystone party to return to the Terrible at or about sunset, and sail back to Plymouth; a method more cautious, but which evidently impeded the progress of the work, since they often lay weather-bound at Plymouth for several days, as the summer was a very stormy one. It is noteworthy that when Sunday was a fine day the ox or the ass was pulled out of the pit without hesitation.

It is curious that Winstanley himself makes no mention of this exciting occurrence. All he says of the second year's work is that it was spent in making a solid body or round pillar, twelve feet high and fourteen in diameter, which, when finished, gave him and his men more time to work on the stone itself, and 'something to hold by.'

In the early part of the third year, 1698, the wooden pillar was raised, which, to the vane on the top, was eighty feet high. Being all finished, with the lantern

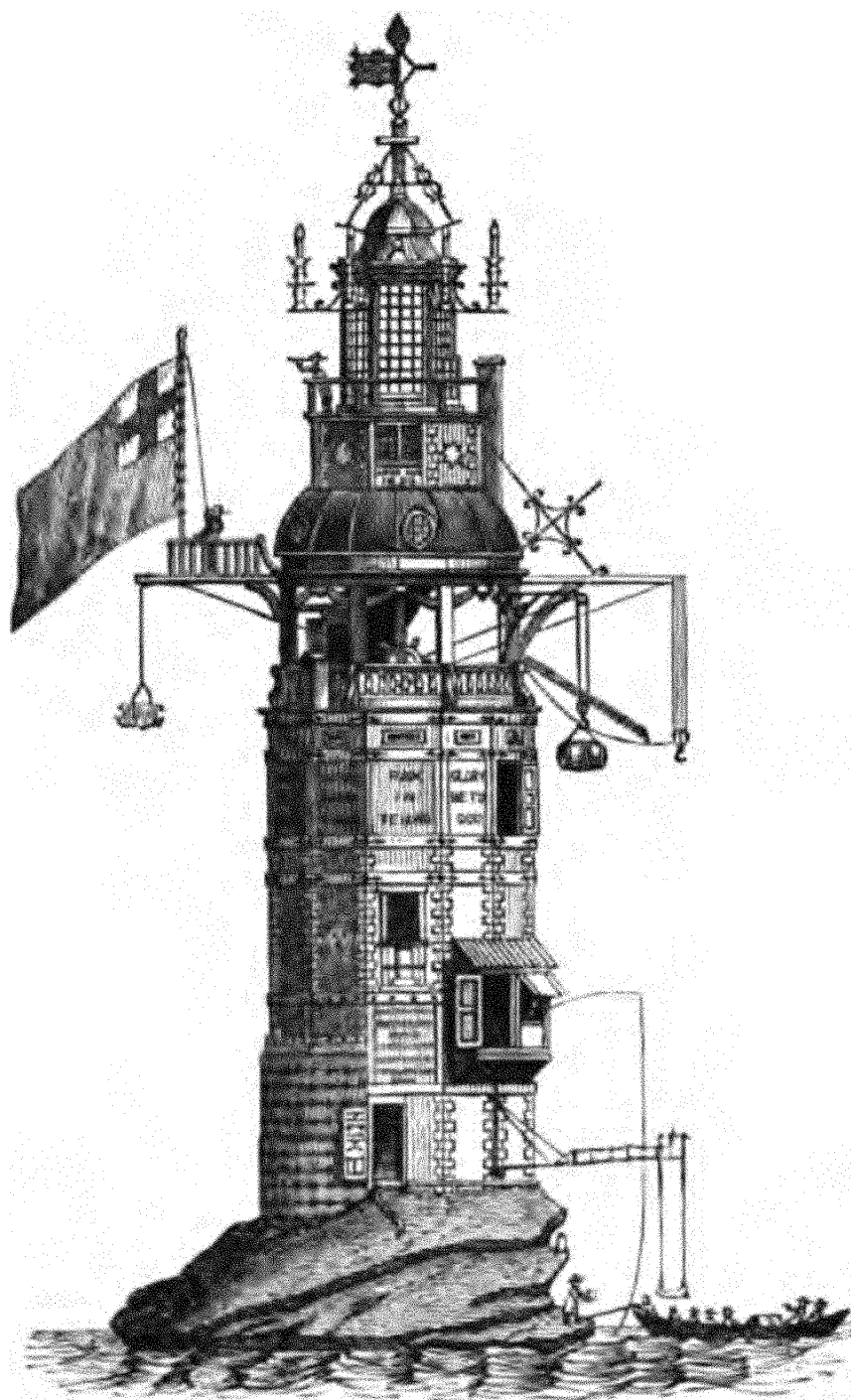
and all the rooms in it, 'we ventured,' says Winstanley, 'to lodge there, soon after midsummer, for the greater dispatch of the work.' By so doing the engineer and his men received a sharply enforced lesson, which taught them to judge, by comparison, what a winter's gale would be like on their sea-girt home, and what might be the isolation and privation of those whose lot it would be to dwell there during a considerable part of the year. The very night of taking up their residence on the rock, a fierce storm raged in the Channel; waves broke over the building, drenching the inmates and their scanty store of provisions, washing away their building material, and filling them, all unused to such exhibitions of Nature's fury, with the wildest alarm. The storm continued for several days and nights, and it was only on the eleventh day that their boat from Plymouth was able to venture near the Eddystone. We can imagine with what thankful hearts Winstanley and his men came on board her, and returned for rest and refreshment in more secure quarters.

Before long the engineer and his men returned to the rock, and must have laboured with considerable energy, since by November 14, 1698, the whole structure was complete, and the tallow candles—for such was the lighting power used in the first Eddystone lighthouse—lighted. It is not difficult to picture the satisfaction

with which Winstanley watched the ray of light, slight and dim as it was, penetrating into the darkness of that November night, his triumph at the accomplishment of his task, and his charitable satisfaction at the thought of its benefit to his fellow-men.

Here is the wonderful work which his fertile imagination had produced. One has only to glance at it to see how deficient it was in every requisite element of stability, how it was susceptible to the action of the storm. Its polygonal form rendered it peculiarly liable to be swept away by the waves ; whilst the upper part courted every wind of heaven, being ornamented with large wooden candlesticks, and burdened with useless vanes, cranes, and other 'top-hamper,' to use a sailor's phrase. Had Winstanley been seeking to erect a Chinese pagoda, his work would have been singularly successful.

Its gaudy painting, with suns, compasses, and mottoes, was all in keeping : the last included *Post tenebras lux*, *Glory be to God*, *Pax in terra*. The rooms included a kitchen and accommodation for the keepers, a state-room, finely carved and painted, a chimney, two store cupboards and two windows. This is Winstanley's own description accompanying the engraving. In this picture he complacently fishes from the state-room window. How unlike other lighthouses ! It was a tower of defence ; it possessed a kind of movable shoot on the top,



WINSTANLEY'S EDDYSTONE LIGHTHOUSE.

by which he could shower stones upon an enemy attacking the building on any side. How characteristic of the man—the jeers and warnings of his fellow-men only excited his obstinacy.

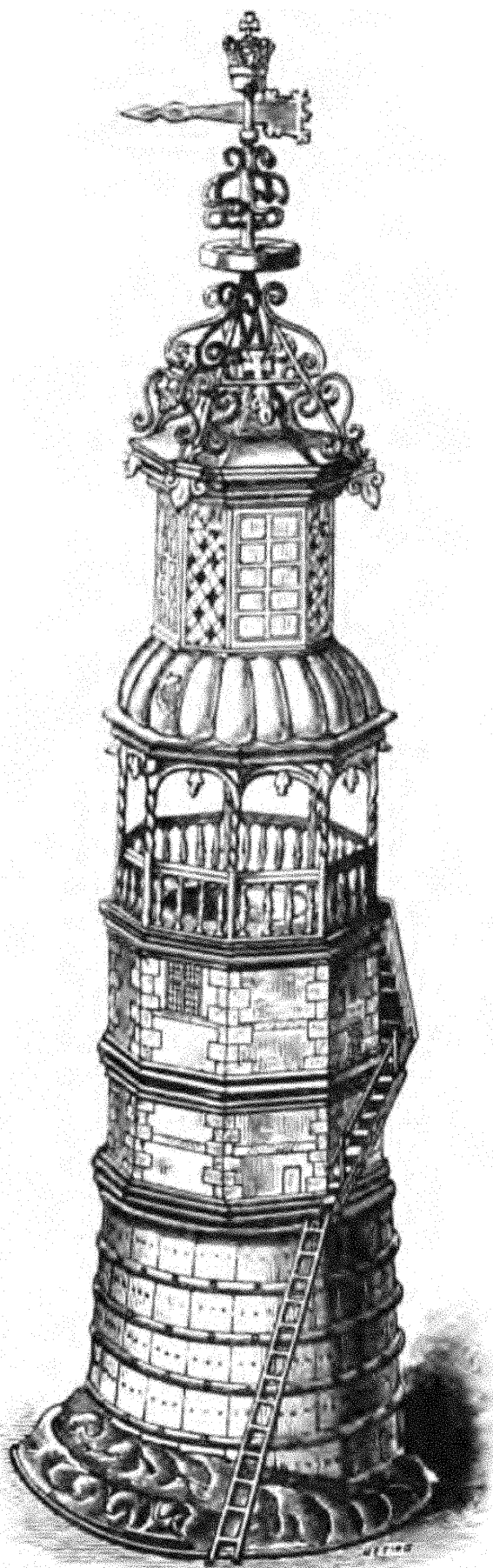
The question of returning to the mainland did not then much disturb the minds of the dwellers in the lighthouse. They had purchased experience by their recent incarceration, and had no doubt with them a good store of provisions. When, however, a month had passed, and no boat had been able to come to them, these provisions had dwindled, and the inmates of the lighthouse must have been beginning to tire of their lodging, to yearn for the comfort of the home fireside—especially at the festive season then so near upon them. At last only three days before Christmas, the Plymouth boat came out with relief-men and provisions, and carried back Winstanley and those with him to the shore: ‘We were,’ says the engineer, ‘almost at the last extremity for want of provisions, when, by the providence of God, came two boats’ with supplies, ‘and the family that was to take care of the lights.’

At Plymouth tidings of the appearance of the light had, no doubt, been eagerly sought after, and each incoming vessel questioned on the subject. When the first news reached port we cannot say, but it must have done so early in December, as on the 17th of that

month, the Trinity House ordered the following notice to be inserted in *The London Gazette* and posted at the various ports of the kingdom, in which, as we see, allusion is made to the fact that the light had then been 'for some time' kindled: 'The Masters, wardens, and assistants of Trinity House having at the request of navigation¹, with great difficulty, hazard, and expense erected a light-house upon a dangerous rock called the Eddiston, lying at the mouth of Plimouth Sound, as well for the avoiding the said rock as for the better directing of ships thro' the channell and in and out of the harbour aforesaid. They doe hereby give notice that the said light hath been kindled for some time; and that being discernible in the night at the distance of some leagues, it gives entire satisfaction to all masters of ships that have come within sight thereof.' This being so it was expected that vessels would cheerfully pay the dues for its support, sanctioned by the king's patent.

We do not learn when the 'family'—sent to the lonely rock just before Christmas, 1698—was relieved, or of what that family consisted. If it included a man and his wife only, then it is to be hoped that the couple selected had either won the Dunmow flitch or would at

¹ The reader will have noticed that credit for the undertaking did not lie with the Trinity House.



SILVER MODEL OF EDDYSTONE LIGHTHOUSE AFTER ALTERATION.

least be deserving of it ; the Eddystone rock would have been close quarters for a pair not happily matched.

It is probable that early in the following year, 1699, Winstanley returned to the Eddystone to see how the structure had borne the wintry blast. He found it unshaken, but he also found that it was not nearly high enough ; the sea, dashing against the rocks, being frequently thrown above the lantern, and often for long together completely hiding the light. He therefore determined, besides strengthening the foundations, to take down the upper part of the building and rebuild it, as shown in the silver model of it here figured. This was so much higher than that removed that the total elevation was 120 feet. Even with this alteration Winstanley tells us that in great storms the sea ‘flies, in appearance, 100 feet above the vane.’

That William III took a personal interest in the Eddystone lighthouse is proved by the fact that, through Major-General Trelawny, he commissioned a certain Thomas Bastin, the brother of an officer in the army, and a man who tried to ease the pinch of poverty by sketching various notable buildings, to make for him accurate pictures of Winstanley’s work both before and after its alteration ; these, in January, 1702, were hanging in one of the king’s apartments at Kensington. How we learn the fact is that his majesty had forgotten to

pay Mr. Bastin's little bill, which came to £30, and so there is some correspondence on the subject in the Treasury papers.

Besides the *natural* dangers of Eddystone there were some that we may term *artificial*, to which those who resided there were exposed. We have seen how, during the progress of the work, the men from a French vessel swooped down on the undefended workmen and treated them in no very agreeable manner; but it was not only from foes that the 'islanders' were liable to attack: 'Spare us from our friends' might well have been their motto had they coveted one. What days those were, those days of vigorous 'pressing' for sea service! there was recruiting then, with a vengeance. Perhaps it was needful, perhaps it was not; any way, it was carried on with a want of discrimination too often apparent in those whose hands are tied up with red tape, for we find that even the light-keepers of the Eddystone—or at least the male portion of them—were not safe from the press-gang's grasp. They were 'pressed' into his majesty's service, though very speedily released.

There is not much history of the first Eddystone lighthouse, after its completion, handed down, so we may pass quickly to its closing chapter; and a tragic one it is. When altering his building in 1699, Winstanley had laughed at the fears of the inmates who, on many

a night during the previous winter, had verily believed their last hour had come. He wished he might be there during the fiercest gale that ever swept the Channel, for his lighthouse was as safe as a castle. This was a bit of bravado. Men of scientific experience had pointed out the defects in the construction of Winstanley's wonderful work—defects which we have only to look at our illustrations to see for ourselves, and which are almost as apparent after the alterations in the building.

But despite all that was said to him, Winstanley persisted that his lighthouse was perfectly secure. We know what happened. How his wish to be in the lighthouse under circumstances that would test its strength to the utmost was gratified, and what was the result.

An old man, who was alive in 1780, could perfectly remember the scene at the Barbican steps, Plymouth, when, with every appearance of 'dirty' weather, Winstanley persisted in setting off for the lighthouse on the afternoon of November 26, 1703. But the story of the great storm that raged that night and the following day has often been told—too often to bear repetition here. Inland, almost as much as at sea, its fury and its fatal consequences were experienced. Around Winstanley's house at Littlebury it whirled dead leaves and broken wood against the window panes, and shook the very

building itself to and fro, yet but one thing, one ornament, fell to the ground—that was the silver model of the wonderful lighthouse. At what hour this happened we do not know, neither do we know the exact time at which the Eddystone lighthouse, with its inmates, fell into the sea, so we cannot say if there was any agreement between the two; but there were not wanting many folks who lived round about in the Essex farms and villages who firmly believed that the fall of the silver model was Mrs. Winstanley's warning of the tragedy at Plymouth.

The memory of that terrible gale lingered long in the minds of those who experienced it; the papers of the day are filled with accounts of pitiable disasters and of hairbreadth escapes; but no incident made a deeper impression in the mind of the public than the overthrow of Winstanley's lighthouse—'going souse into the sea like the Edystone'¹ was a favourite saying long after other incidents in the hurricane had been forgotten.

Apart from everything else, the destruction of the Eddystone lighthouse was a very heavy financial loss to Mrs. Winstanley: the principal part of her husband's capital had been invested in the undertaking; he had, we learn from official papers, expended on the building and maintenance of the lighthouse at the time of its

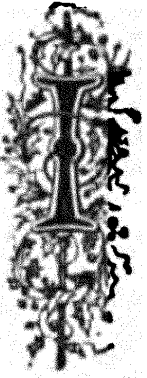
¹ *The Beaux Stratagem*. By Farquhar, 1707, scene v.

destruction, £6,814 7s. 6d.—for this vouchers were forthcoming—and he had received from dues £4,721 19s. 3d., which left him at least £2,000 and more out of pocket ; but it was also shown that quite £1,000—for which the vouchers had perished in the lighthouse—had been paid by Winstanley, from first to last, over the building, so that his estate was the loser of something over £3,000 by the disaster.

That being so, Mrs. Winstanley might reasonably look, with assurance of success, to the petition that was quickly presented to the crown—pointing out that she was a fit and deserving object for the bestowal of a pension from the royal bounty. After due time had been wasted in official correspondence this was given in the shape of a donation of £200 and pension of £100 a year.

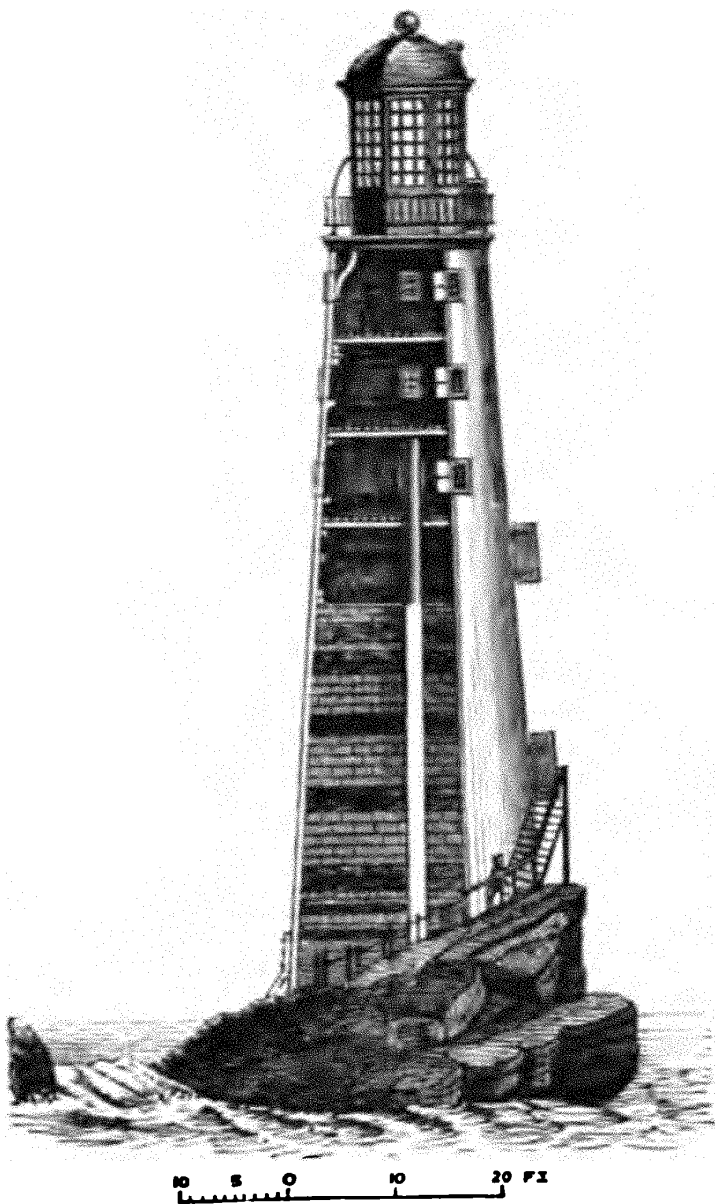
CHAPTER XIII

THE SECOND EDDYSTONE



It was unlikely that the Eddystone lighthouse, which in the few years of its existence had proved so beneficial to navigation, would be allowed to remain for long unrestored, more especially as the loss of life and treasure upon the Eddystone reef, which followed on the destruction of the lighthouse, bore terrible testimony to its utility. John Lovett, a London merchant, purchased Winstanley's interest in the patent, and entered into an agreement with the Trinity House, by which it was arranged that the corporation's name should be used in applying to Parliament for licence to gather tolls for a new Eddystone lighthouse so soon as it should be erected. Parliament readily passed the requisite bill, and the new building was commenced.

The structure then raised is generally spoken of as



RUDYERD'S EDDYSTONE LIGHTHOUSE.

‘Rudyerd’s lighthouse,’ being built and designed by the John Rudyerd already referred to, who was, as we pointed out, a silk mercer in Ludgate Hill. A silk mercer is not, perhaps, quite the man we should go to nowadays to act as architect and engineer for a lighthouse ; but to him his fellow merchant, Lovett, entrusted the erection, and Rudyerd, aided by a couple of shipwrights from Woolwich Dockyard, set to work and erected a wooden tower built, for some distance up, around a core of granite, which managed to withstand for more than half a century the gales that swept the Channel, and might, for all we know, have been standing there to-day, had it not been consumed by fire.

In erecting the tower, Rudyerd and his shipwrights had much the same difficulties to contend with as Winstanley : the sudden storms and the sudden descents of the press-gangs each in turn considerably hindered the work ; and at last it became necessary for government to grant special protections from pressing for all those in any way engaged in building the lighthouse. These protections are interesting documents ; they give a minute description of the personal appearance of the person protected, and prove incidentally that many, indeed most, of the men that had been employed by Winstanley were again employed by Rudyerd ; altogether the staff of workers and boatmen numbered about twenty.

As the men employed by Rudyerd had also worked on the first Eddystone lighthouse, they would naturally possess a lively recollection of the exciting incident of the descent of the French privateer already described ; and one cannot wonder that they now asked for something more than protection from the press-gang's grasp—they demanded that of a man-of-war to watch by the rock so long as they worked there ; and without it they would not go. The Admiralty saw no necessity for such waste of a ship's time ; it argued, in well-framed official language, that the men's fears were vain, since on the previous occasion the French king had severely punished his officer who took them prisoners, and had at once sent back Winstanley himself 'with encouragement.'

But the workmen were not to be talked into going to the Eddystone unprotected by British guns. Winstanley may have been treated with the courtesy described, but *they* had not been ; they had the vivid remembrance of some time spent at sea in an open boat and in the costume of galley slaves.

At last the Admiralty gave way, a man-of-war was set apart for service at the Eddystone, and the timber tower, that for long had lain ready at Plymouth, was towed out to the rock, set up on the site of the former lighthouse, and before very long—on August 28, 1708—the candles in the lantern were illuminated.

From first to last Rudyerd's lighthouse had cost Lovett hard on £10,000 ; but, as his lease was to be for ninety-nine years from the time of kindling the lights, he might reasonably have considered he was making a profitable investment. Yet, like so many lighthouse speculators, he was doomed to disappointment. Difficulties were experienced in collecting the dues, and troubles and annoyances of various kinds continually arose, with the result that he died, probably a ruined man, not long after the building was finished ; the fortune over the Eddystone lighthouse was made by his successors in title—the mortgagees of the undertaking who came into possession on Lovett's death.

Of incidents connected with the history of the Eddystone under their ownership we do not hear much ; Rudyerd's structure was obviously more secure than Winstanley's, yet for many years it was not without considerable anxiety that the friends of those in charge of the lighthouse awaited tidings of the safety of the building after any particularly heavy storm had swept the Channel. But as year by year these left the lighthouse unshaken such alarms subsided, and we find that the post of keeper of the Eddystone lights was one keenly sought after.

The principal thing those stationed on the rock had to complain of was occasional shortness of their food

supply. For a considerable time the provision of this was left to the owners' agent, one Pentecost Barker, whose diary has been preserved. Now, whether from Mr. Barker's bad management or from his employers' stinginess, those on the rock, according to the entries in his journal were left much too often with insufficiency of food and insufficiency of candles for the lantern. See what he enters under December 8, 1729 : it was 'a day of terrible perplexity' to him, for the 'people on the Eddystone' had no candles. Without casting a slur on his memory, we cannot but think that this was his own fault, for, says he, this 'so teased and fretted' him that he had a fit. This was very sad ; but there are other entries in his diary which suggest that the fit may have been produced not so much by mental agitation as by what he took to allay it !

As most of us know, Rudyerd's lighthouse was entirely destroyed by fire in December, 1755, after an existence of forty-eight years. How this fire originated is uncertain ; probably the candle-flames, blown by an unusually strong gust of wind, came in contact with the woodwork of the lantern and set it alight. The fire was discovered at two in the morning, as one of the keepers went from the watching-room to snuff the candles, and it spread with amazing rapidity. There were then three keepers on the rock, and these had, each

of them, very narrow escapes from burning ; yet only one death could be directly attributed to the fire. This was of an old man of ninety who, as he stood on the rock gazing open-mouthed at the progress of the flames, swallowed a portion of molten lead. Helpless with agony he was lifted into the relief boat that came out to the rock, and on its reaching Plymouth was carried to the hospital, where he lingered for several days ; after death, the surgeons opened his body, and found in it a lump of lead weighing seven ounces.

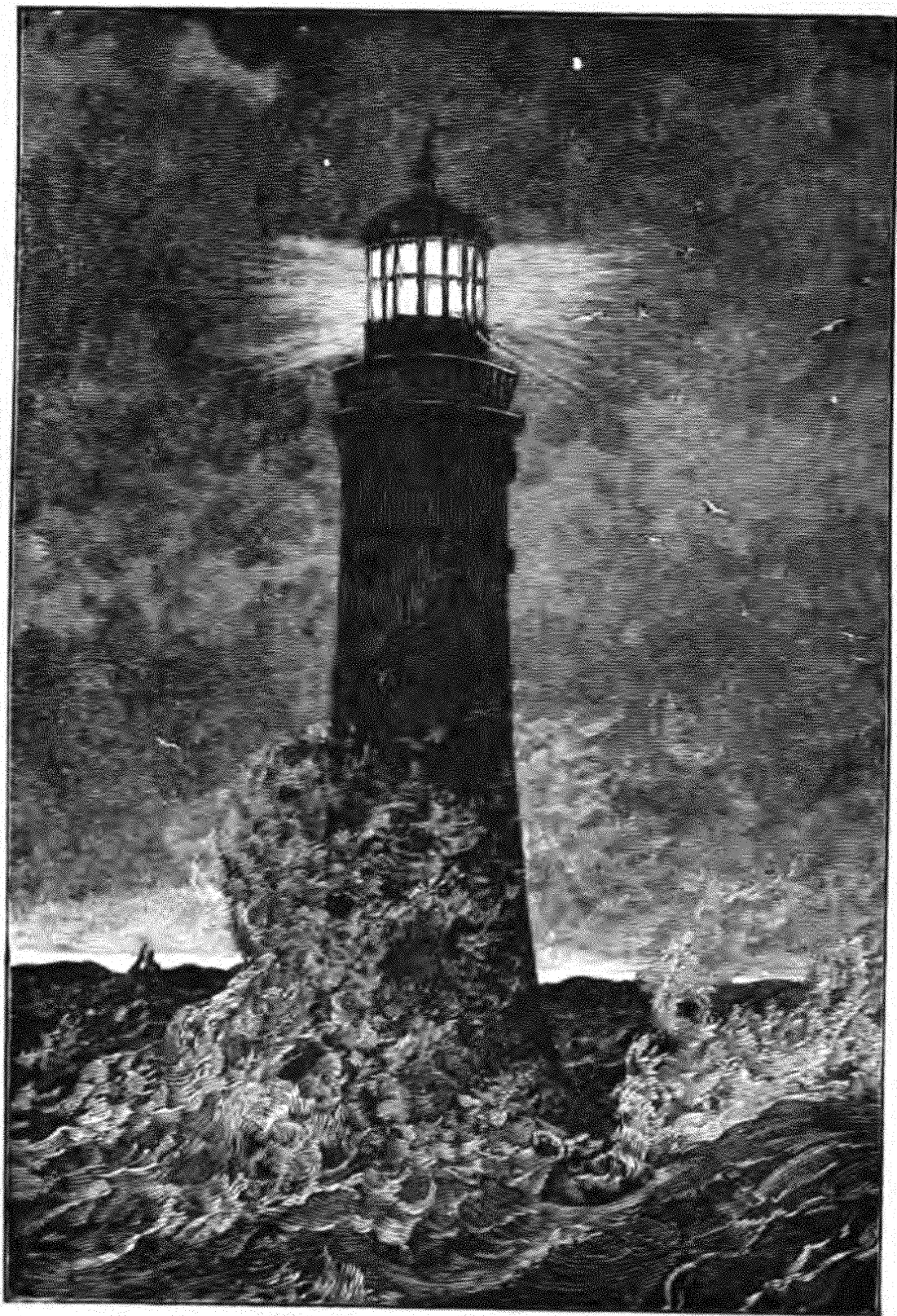
CHAPTER XIV

THE THIRD AND FOURTH LIGHTHOUSES AT THE EDDYSTONE



THE destruction of the second lighthouse at the Eddystone could not have happened at a more unfortunate time, for the long dark nights of the next few months were the worst in the year for vessels passing up and down Channel in proximity to the rock. It is strange, therefore, that, though the proprietors took in hand the rebuilding of the lighthouse immediately after the fire, the means, then well known, of marking dangerous shoals by a lightship, were not sooner taken. No lightship was placed by the Eddystone rock till the August following the fire.

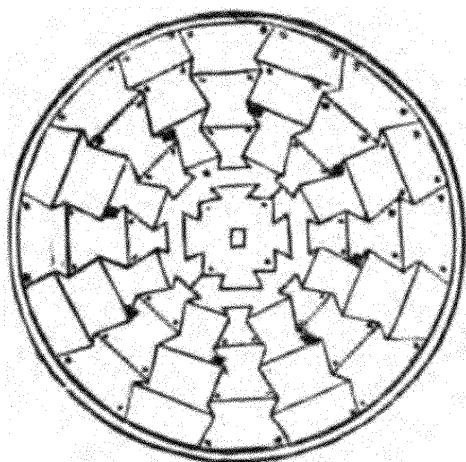
The man consulted by the proprietors about rebuilding the lighthouse was John Smeaton, who, by the way in which he carried out the work, won for himself



THE EDDYSTONE BUILT BY SMEATON.

a fame that has lasted till to-day. The lighthouse built by him withstood the storms of years, and, as we most of us remember, it was only in 1881 that it was deemed necessary actually to remove it and to build another lighthouse on another part of the Eddystone rocks.

When Smeaton first met the proprietors he alarmed their economical feelings by proposing to build a stone and not a wooden lighthouse ; but so powerfully did he



SMEATON'S MODE OF DOVETAILING THE STONES.

urge the ultimate saving that would be effected by having a building of this more durable material that he left them with an order to carry out the work as he thought fit, and he started off to Plymouth to execute his commission.

Many were the difficulties he encountered ; the mayor of the town would not lend him the Guildhall as a room

in which to piece together his models—he thought it would ‘spoil the floor’; for the same reason the keeper of the Assembly Rooms refused the use of his chief apartment; it was, he said, the only decent dancing-floor in Plymouth, and his life would be a burden to him if he permitted it to be spoilt—there was a large feminine population at Plymouth! Then Smeaton had the same trouble with the press-gangs that Winstanley and Rudyerd had experienced. His workmen, too, caused him some anxiety; there were many incipient ‘strikes’ among them, and though he seems to have known how to deal with such outbreaks, they naturally retarded the work and ruffled his temper a great deal.

Smeaton’s troubles with the press-gangs certainly seem a little remarkable, as we read of them. Surely in the half century that had elapsed since Winstanley and Rudyerd had been annoyed by such outbursts of official vigilance, even government departments must have become more enlightened. Yet here, in 1755, and during the next two or three years, we find the officers of the ‘press’ acting with a want of discrimination equal to that their predecessors had displayed fifty years before, and repeatedly hindering the good work being carried on at the Eddystone by ‘pressing’ the workmen and boatmen into the king’s service. It must be said,

in fairness to the heads of the Admiralty; that, when the matter was brought to their notice, they speedily directed the men's release; the officers' excuse generally was that they did not *believe* the men's story, that they were employed on 'Eddystone service'; so Smeaton soon saved this excuse being made by painting on the main-sail of the Eddystone store-boat a large picture of the lighthouse, and by giving to each of the workmen a stamped silver medal¹ which served as a talisman in case the press-gang interfered with them on shore.

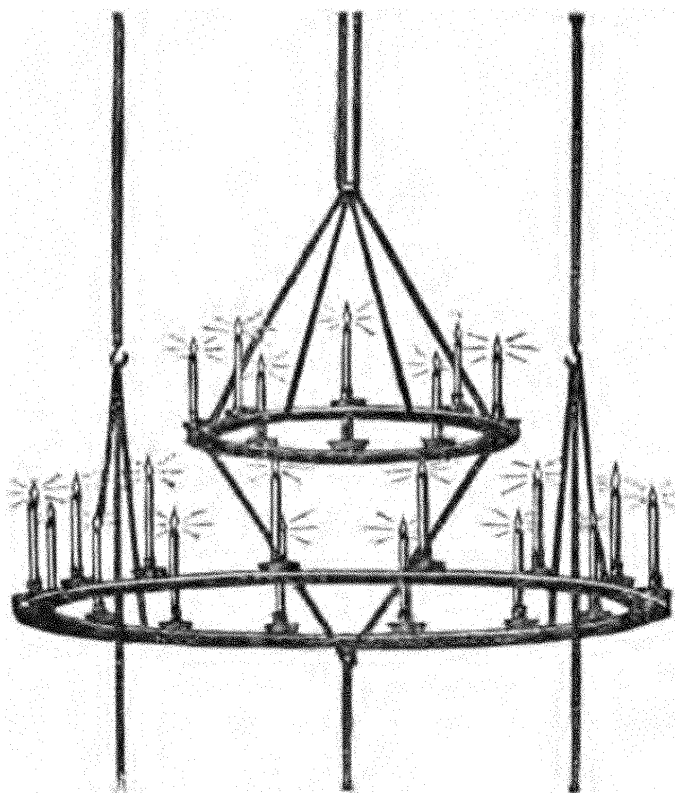
Smeaton began work at the stone-yard at Mill Bay, Plymouth, in March, 1757, and shortly afterwards on the rock itself; and on August 24, 1759, the last stone of the lighthouse had been fixed in position. On it was engraved the short but expressive motto: *Laus Deo!*

What a contrast was the whole building, even to this devout utterance, to the production of Winstanley's fantastic imagination; yet, perhaps, a less fanciful mind, a less imaginative disposition than his, would not have hazarded what, in his day, was regarded more or less as a mad project, and so the possibility of the lighthouse on the Eddystone rocks might have remained undemonstrated.

The corona in which the candles were to be placed, and all the 'tackle' for hanging it, reached the Eddy-

¹ See page 7.

stone on October 17, and Smeaton tells us with pride that, in less than half an hour after its arrival, it was placed in position and the candles fixed in the sockets prepared for them. Then the signal was given to the lightship, hard by, that her services were no longer



SMEATON'S CHANDELIER.

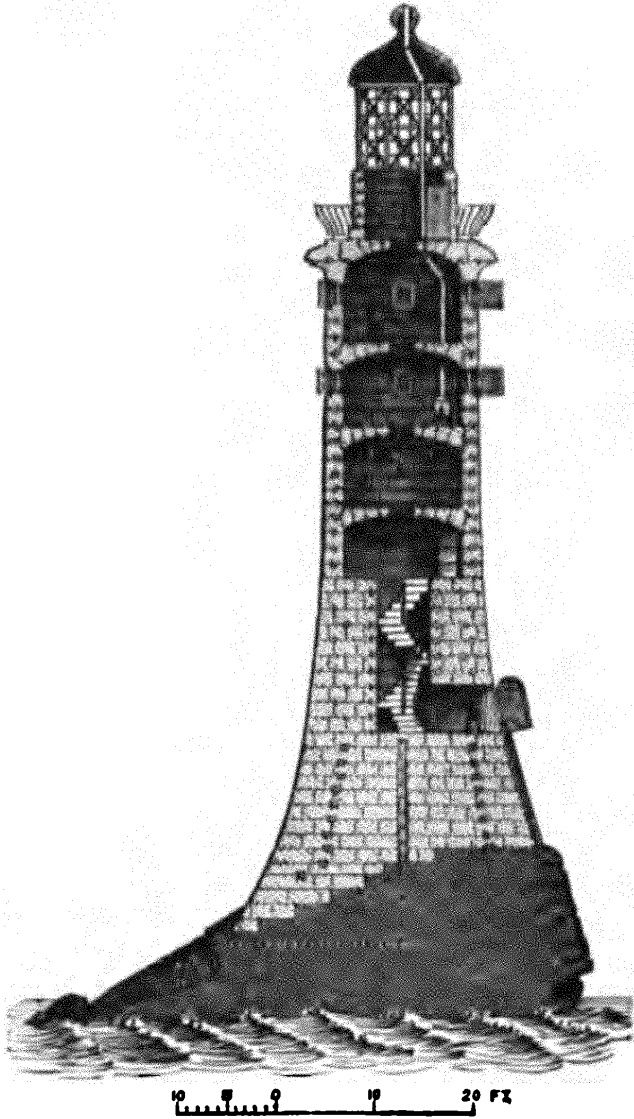
required, and she, hoisting her sail and hauling up her anchors, made her way back to Plymouth. At dusk Smeaton lighted his candles, and found, to his great satisfaction, that by opening vent holes at the bottom of the lantern he could keep down the temperature,

and so, in summer, prevent the candles from melting—a feat which Winstanley and Rudyerd had failed to accomplish.

The light in the new lighthouse was pronounced excellent, and boats coming within hail of the rock told of the testimony to its goodness that in-coming vessels had brought to Plymouth. Smeaton might well be proud of his work—and so no doubt he was; but he showed no anxiety to return to shore to receive the plaudits and congratulations of mankind. He, and some of his helpers, waited in the lighthouse, attending to its duties, till the two men he had selected as keepers arrived there; then he and his companions sailed back to Plymouth. Thus, as Smeaton himself writes, after ‘innumerable difficulties and dangers, was a happy period put to this undertaking,’ without loss of life or limb.

From that day to this not a night has passed on which the Eddystone rocks have been unmarked by a light, though, as the reader was reminded a little way back, Smeaton’s building no longer performs the duty of a lighthouse. As the illuminating power was in Winstanley’s time, so it remained until the opening years of the present century, when a general improvement in coast-lighting was being adopted. It is really surprising that candles, with the trouble they necessitated,

lasted so long as they did as lighthouse luminants, for we must remember—what the present generation is probably forgetting—that candles in those days needed



SECTION OF THE EDDYSTONE LIGHTHOUSE BUILT BY SMEATON.

continual snuffing to keep them bright ; and it is amusing to read in Smeaton's account of his lighthouse the evident pride with which he refers to a contrivance,

worked by the Eddystone clock, which sounded a gong every half-hour, so warning the keeper on duty that he must apply his snuffers to the four-and-twenty candles in the lantern !

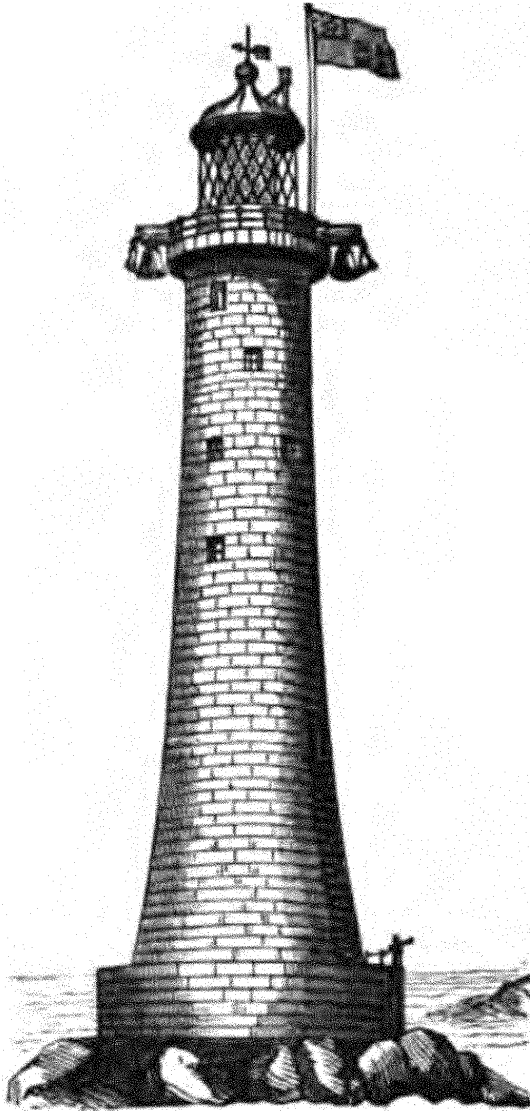
The improved lighting at the Eddystone came into operation on the Trinity House acquiring possession of the lighthouse on the expiry of the lease—that would be about the year 1807. Very soon afterwards it was discovered that the rock on which the building stood was becoming undermined by the action of the tide. Robert Stevenson was consulted in 1813, and for the next sixty years the records of the Trinity House show that repairs to the lighthouse of some kind or other were being carried on almost continuously. But this stopping cracks, underpinning, and shoreing up could not go on indefinitely ; and in 1877 the board resolved to instruct Sir James Douglas, its late engineer-in-chief, to build a new Eddystone lighthouse on a neighbouring rock which offered a perfectly solid foundation—the improved diving appliances of modern days of course rendered possible a much more complete submarine examination of the spot selected. It is worthy of note that, whilst engaged in their explorations, the divers found a number of relics of the first lighthouse, including the weights of the large standard clock that had given Winstanley and his keepers the time, and which the waves had

swallowed up a hundred and seventy years before, when the unstable and fantastic tower was blown into the sea.

The present Eddystone lighthouse differs in many important respects from Smeaton's; instead of the tower being a curved shaft from its foundation, Sir James Douglas has designed his building with a cylindrical base, which not only prevents the waves from breaking against the tower itself, but provides a convenient landing-stage and exercise ground all round the lighthouse, a boon which a recent visitor to the lighthouse tells us is greatly appreciated by the keepers.

About incidents connected with the erection of this fourth lighthouse on the Eddystone it is scarcely necessary to say very much, for they are in the recollection of most of us. Both the foundation stone and the last stone of the tower were placed in position by the present Duke of Saxe-Coburg and Gotha, late Master of the Trinity House, the former in 1879 and the latter in 1881. Dangerous as was much of the work performed, Douglas could say at its completion, as Smeaton had done, that from it there had resulted neither loss of life nor injury to limb; yet some of those engaged in the building operations experienced hairbreadth escapes: Mr. Douglas, a son of Sir James, was standing on the

old tower, superintending its un-building, when a portion of the machinery employed struck and hurled him towards the sharp rugged rocks seventy feet below ; had



THE PRESENT EDDYSTONE LIGHTHOUSE.

he fallen upon these, he must inevitably have been dashed to pieces. The workmen on the tower, on the rocks, and in the supply-boat, were powerless to help

or save him, and, silent and horror-stricken, waited the end. Suddenly a shout burst from the lips of all, 'Saved!' and the young engineer was borne high above the angry rocks on the breast of one of the huge waves that rolled in from the westward, and quickly rescued by the men in the supply-boat.

Granite is the material of which the present lighthouse is built, and the blocks are skilfully dovetailed together, so as to give the building the strength of solidity; indeed, for five-and-twenty feet from the base it is actually solid, with the exception of a large water-tank let into the granite. It stands 130 feet above the high-water mark, and so in height exceeds any of its predecessors. The light is given by an oil lamp fitted with a burner which was invented by Sir James Douglas, and which possesses illuminating power equal to that of a quarter of a million candles—more than six thousand times the power of that shed from Smeaton's light. It is visible at sea for over fifteen nautical miles, so that in a westerly direction its range overlaps that shed from the Lizard, the lighthouse of which we shall speak next.

The living arrangements in the new Eddystone are the most approved, and all is done to render the keepers' isolation as little irksome as possible. Irksome to a certain degree it must always be—the very isolation

necessitates that, and this is frequently prolonged beyond the period intended ; for communication with the rock on the days arranged is not always possible, and it is since the erection of the present lighthouse that the keepers' food supply has been on one occasion nearly exhausted. When the boat from Plymouth at last effected a landing it was found that those on the rock were reduced in their store to a few biscuits.

So much for the history of the four lighthouses that, in turn, have marked the Eddystone reef ; but before speaking of the next lighthouse along the coast that claims our attention, there is one word more to be said about the third Eddystone. Smeaton's massive tower was—on the present lighthouse being completed—taken down, stone by stone, and re-erected on Plymouth Hoe, where, as a landmark, it still renders service to the mariner. Thus the curious reader may see for himself what his ancestors a few generations back regarded, and rightly regarded, as the most wonderful lighthouse ever erected. If he likes he can go within it and see the interior arrangements just as they were when the building stood on the Eddystone—the candelabra in its original position, the clock which reminded the keepers of 'snuffing time' for the candles, and besides these, sundry relics of John Smeaton himself. Then, if in after days, when far from Plymouth and its bright and

breezy Hoe, he desires to refresh his memory, to call to mind what the old lighthouse was like, he has only to pull out of his pocket any current copper coin of the realm, and there, to the left of Britannia, he will find a small but faithful representation of the building which won for its builder so famous a name.

CHAPTER XV

THE LIZARD



OW let us pass on to the Lizard Point, where the massive whitened lighthouse with its four towers is quite one of the features of the Cornish coast. This excellently ordered building, with its wonderfully powerful light, was erected in 1752, and as the keepers narrate the fact, the majority of sightseers feel that they are in quite an antiquarian atmosphere, and think—even should their minds momentarily revert to the lighthouses of the ancients—that they are at least looking upon one of the oldest English lighthouses. The reader of these pages will not allow such historic errors to possess him ; the thought that will cross his mind will be,—Strange that so important a point on the English coast should have remained unlit till 1752, so long after the building of lighthouses—though opposed and hindered in quarters

where they should have been welcomed and encouraged—had become general all along our shores.

Certainly it was strange that no lighthouse, that is, none with anything but a most limited existence, was placed on the Lizard till 1752; but a lighthouse was there for a short time, considerably more than a century earlier, and it is the history of that lighthouse, full as it is of incident and romance, that claims our attention here.

Unlike the rest of such buildings erected in post-Reformation times, this lighthouse owed its existence to philanthropy—to a desire on the part of one who well knew the treachery of the coast, the long reefs of rocks (now near the surface, now far below it) that stretched seawards; one who lived within hearing of the breakers' roar, and the cry of shipwrecked men and women, that so often rose above the howling of a winter's gale. Many a time he, with such of his servants as were willing to turn out from home and battle with the wind and rain, had spent long hours in aiding as best they could the maimed and helpless victims washed ashore, and had tended to their wants beneath the shelter of his own roof.

This heroic Cornish gentleman was Sir John Killegrew; early in the year 1619 he began to take active measures towards placing a lighthouse on the Lizard Point. He confided his project to a friend, Sir Dudley Carleton, the future Lord Dorchester, then English

ambassador at the Hague, and it is likely enough that from him he first learned of the necessity of obtaining a royal charter for the good work he had in hand—that is to say, if he was to gather any toll towards its support. He was not a rich man, and so felt the necessity of doing this; for the expense of a nightly fire was quite beyond his means, though he was willing and able to bear the cost of the actual erection of a tower on which that fire was to burn. So he asked that, for the sum of ‘twenty nobles by the yeare,’ the king would allow him, entirely at his own cost, to erect a lighthouse at the Lizard, and, for a term of thirty years, collect from ships that passed the point such voluntary contribution as the owners, by their captains, might be disposed to offer. This, it will be said, was not a very exorbitant demand; nor indeed was it, but it touched a principle, and, as we shall see, one which in the end proved fatal to success.

The Council considered the petition; then by the king's command submitted it to the Trinity House for opinion! This opinion, in due course, was delivered. It began by giving our Scotch-born sovereign—who perhaps did not know much of so southerly a part of his dominions as Cornwall—quite a nice little geographical account of the Lizard; and it arrived at the conclusion that it was not ‘necessarie nor convenient on the Lizard to erect a light, but, *per contra*, inconvenient, both in

regard of pirates, or foreign enemys ; for the light would serve them as a pilot to conduct and lead them to safe places of landinge ; the danger and perill whereof we leave to your majesty's absolute and profound wisdom.' Well-chosen words these—'Absolute and profound wisdom!' If anything was likely to win a favour from James I, it was an expression of admiration for the mental abilities which—be it said to his credit—he really believed he possessed.

But James I, though he might be pleased, probably knew how much genuine alarm the Trinity House felt at the Lizard and other lighthouse schemes put forward about that time, and he took *cum grano* what was said, despite the flattery that enwrapped it. That is one reason why, in the face of such a very hostile report, Killegrew got what he wanted ; the other is that, following some sage advice which his friend Carleton had given him, and making friends at court, the Cornish knight had become possessed of a share of Buckingham's friendship, and what 'Steenie' said, James did—or, as in this case, what 'Steenie' asked to do, James gave him permission. As Lord High Admiral of England, Buckingham, in July, 1619, granted the sought-for patent in the terms of the petition, but with a clause compelling the patentee to immediately extinguish the lights should the approach of an enemy be apprehended.

Killegrew had been in London to press his suit, and he now returned to Cornwall in high spirits with his patent. He must have pushed forward the work with considerable energy, as within a few months of his return he was able to tell his friend at the Hague that the 'tower or lighthouse' was already 'well forward,' and that he hoped, by God's assistance, to finish it by the end of September and to light it ere the storms of autumn and winter began. But the task had not been an easy one in many ways, one of them being the difficulty in obtaining labour. The fact was that the Cornish folk round about, born and bred to wrecking—most of the houses near the Lizard were built of 'the ruins of ships'—were no friends to any project that would rob them of their ill-gotten gains. Says Killegrew, the work had been far more costly than he anticipated, and chiefly because of the difficulty of getting labour. Why? The writer shall tell us:—

'The inabytants neer by think they suffer by this erection. They affirme I take away God's grace from them. Their English meaning is that now they shall receve no more benefitt by shipwreck, for this will prevent yt. They have been so long used to repe profitt by the callamyties of the ruin of shipping, that they clayme it heredytarye, and heavely complayne on me.'

Here is a vivid and a terrible picture of life amongst the dwellers on the Cornish coast. Killegrew felt that the lighthouse would rob these people of their gruesome harvest, and if it did, then he saw better times ahead. 'I hope,' he went on in the same letter, 'they will now husband their land, which their former idell lyfe hath omitted in the assurance of theyr gayne by shipwrack.'

The lighthouse, a substantial structure, built of lime and stone, was completed well before Christmas, 1619, a supply of coal laid in, and a fire nightly kindled, which, wrote Killegrew, 'I presume speaks for yt selfe to the most part of Christendom.' The cost of maintenance came to about 10s. a night, and that, added to the expense of building, had by the next January put him out of pocket £500; so that his limited funds were nearly exhausted. Yet the 'voluntary contribution' he had asked had not brought him in a single farthing; shipwreck had materially decreased, but not a vessel putting into Plymouth or Falmouth had given anything towards the support of the Lizard lights; the thank-offerings for safe deliverance, which his sanguine imagination pictured being offered by grateful mariners, came not at all.

There was now nothing for it, since sailors would not, or rather could not, pay out of gratitude, but to seek for a compulsory levy. He sent in his petition for this to the king, who in turn sent it to the Trinity House,

which body answered much as before, save that the condemnation of the *absurdity* of a lighthouse at the Lizard was more vehement and emphatic on the suggestion of *compulsory* payment ! But against this manifestly insincere condemnation, Killegrew received, thanks no doubt to Carleton, very influential testimonials from Holland, and these decided the king to grant the requisite patent. He had, it may be said, additional grounds for so doing, since, besides the favour of the Dutch navigators, English seamen came forward and spoke to the benefit of the light ; contribute they could not—their masters, hostile to every lighthouse scheme, would not allow that—but speak they could, and they did so, fearlessly and without reserve.

Thus, when Killegrew's pockets were nearly empty, he, in conjunction with a certain William Mynne, Secretary Calvert's brother-in-law, obtained from James I licence to gather a halfpenny a ton from all passing vessels towards the maintenance of the Lizard lights.

Killegrew's patent did him very little good ; the ship-owners refused point-blank to pay, and they, with the Trinity House at their backs, cried so loudly and so much, and stirred up such powerful interest, that James cancelled his grant, the Lizard lights were extinguished, and Killegrew ended his days considerably the poorer for his philanthropic venture.

But the official extinguisher was not applied to the lights without a protest, an indignant protest, from many who, when they spoke of the utility of Killegrew's work, knew of what they were speaking. Our naval sea-dogs, as fearless of the threats of wealthy traders and powerful corporations as they were of an enemy's broadside, spoke up manfully for the Lizard lights. Sir William Monson, good seaman as ever sailed, who had won his laurels fighting the Spaniard, admitted that 'in time of war' such a light might be dangerous, but 'in time of peace' held it most necessary. 'The art of navigation,' he said, was not so certain that a man might assume to himself what land 'he should fall withall, nor the time,' and so 'it were fit men should be furnished with as many helps as can be devised'; and he vouched for it that he himself, 'in his return from the southward,' had oftener 'fallen with the Lizard' than with any other point.

Then, speaking as one who had too often tasted the weariness of a lengthy voyage, he continued that there was no man who had been long at sea, but would be glad to 'make' the land of his destination as quickly as he might; and, said he, men would be bolder to 'bear in' with the shore of England if they knew that 'a light upon the Lizard could be seen by them seven or eight leagues off'—the distance he was informed Killegrew's light had been seen at sea. So much for the 'comfort'

of the light to vessels that had met with no mishap: how much more it would be appreciated in case of accident may, he says, be gauged by example of some wounded traveller on land, losing his way on a dark cold night, and espying a light in a cottage or hearing a ring of bells, by either of which he may be directed to a haven of rest.

Then he tells of some of his personal adventures when off the Lizard Point in the Armada days, thirty years before. Many a good prize could then have been secured, and many a sound English ship saved, had light shone forth from that perilous headland. It had been said, too, that the light would help pirates in the Channel; that, says Monson, need not stand, for 'I say the tenth of ten thousand ships that sail that way is not a pirate'; and he asks the king and his advisers to consider, 'after that,' if it were fit 'to take away a light by which men receive so much good.'

However, despite this testimony, and more like it, Killegrew's light was put out—the tax for its support was a burden, and so it must go. The accounts of the Plymouth corporation record the expenditure of money for 'pulling down' the Lizard lighthouse, which the ship-owners considered 'burthensome to all ye countrie.' Ten years later, Sir William Killegrew, of Pendennis Castle, a kinsman of Sir John, applied to the king for

a renewal of the patent in his favour. 'I am so bold,' he writes, 'as to desire the king to grant the patent to me. . . . 'Tis a thing all seamen desire,' and they wondered by what unjust complaints so great a benefit was lost. 'Every year many ships are [now] wrecked for want of it, and I am,' wrote Sir William, 'at the entreaty of all men, desired to set it up again.'

But no answer was returned to that petition, and when, some thirty years later, Sir John Coryton proposed a lighthouse at the Lizard, the Trinity House, in condemning the suggestion, wrote triumphantly that a former lighthouse there had been found *altogether useless* and very quickly 'discontinued.'

So it was that no lighthouse was established at the Lizard till after the middle of the last century, when that we now see was erected. It was proposed in 1748 by a certain Captain Farrish, who suggested building a lighthouse there which should show four lights. These proposals were made to the Trinity House, not to the crown, and that body—after arranging that the speculator should, when the lighthouse was built, hold it of them for a term of sixty-one years at a rent of £80 a year—offered no opposition to the scheme. The patent was applied for in the corporation's name, and granted.

What became of Captain Farrish, we do not know ; but he figures no more, after this, in the negotiations

with the Trinity House—a Mr. Thomas Fonnereau taking his place. He built the lighthouse and took the profits for the sixty-one years.

As agreed, the petition to the crown for the patent was made by the Trinity House, and it is strange to note how, by the irony of fate, that corporation is forced to make therein the most of every point on which Sir John Killegrew had relied, and which it had so uncompromisingly condemned !

By the close of 1751 the four towers of the lighthouse were nearly completed, and early in the following year the size of the grates in which the four fires were to blaze, and of the lanterns which were to envelop them, were being actively considered by Fonnereau and the Trinity House. The lighthouse and its final completion were quite the talk of the day in the West of England, and the kindling of the fires on the evening of August 22, 1752, was watched by thousands of spectators, who had flocked to the Lizard from the adjacent towns and villages. Though it was the middle of the eighteenth century, there were doubtless many in that Cornish crowd who did not regard this establishment of a lighthouse with quite as much satisfaction as those who had our sailors' welfare at heart ; wrecking, and the love of it, had yet a place in the heart of Cornishmen—and of the Cornishwomen too, for that matter : the keenest searchers

after the harvest of the sea were not, by any means, *all* of the sterner sex !

Coal fires, shut in by glass, did no better at the Lizard than elsewhere, and very soon came complaints from all sides of the feebleness of the Lizard lights ; yet Fonnereau made no change. The plan worked economically, and that is probably all he cared about. But better days for the mariner were at hand. The Trinity House, by the end of the century, was growing into something very different from what it had been ; public-spirited men sat at its council-board, and so soon as Fonnereau's term expired the corporation took over the control of the lighthouse, substituting oil lamps for the shut-in coal fires. A great deal of structural alteration was needed for this, and whilst it was being carried out no better light was given than that of ordinary lanterns lit by oil and fastened on poles or masts.

Such lights were, of course, entirely inadequate, and to minimize as much as possible the inconvenience, the Trinity House bade its labourers work their hardest, week-day and Sunday alike. This was too much for the piety of the neighbouring clergy, magistrates, and villagers. To them the safety of numberless sea-borne souls was as nought to the evil example set by the wicked carpenters and stonemasons who worked at the lighthouse on the Lord's day. The parson of Lizard Town called

these men into his study, read them a serious lecture, and with threats of legal prosecution frightened them out of doing another stroke of work that Sunday. Before the next a happy compromise was arrived at: considering the urgency of the case, the parson and magistrates would say nothing so long as operations were suspended during service-time!

So, in due course, the alterations were made, the new lanterns completed, lit with oil, and a better and steadier light given than had been obtained before—a light so good and so steady that, as they saw it, some of the inhabitants were heard actually to complain of it. The light given by Fonnereau's coal fire was so fitful that it had not really spoiled *business* very much; but with the new lights—why, a wreck would never happen at all! It was the Trinity House now, and not Sir John Killebrew, that took God's grace from these simple Cornish fisher-folk!

Oil was burned at the Lizard till the spring of the year 1878, when—after numerous experiments had been made—the complete system of electric lighting now in use was introduced at a cost of very nearly £15,000, and a fog-horn erected equalling, if not exceeding, in the discordancy of its note, that at Dungeness.

CHAPTER XVI

THE WOLF, THE LAND'S END, AND THE LONGSHIPS



SOON after a lighthouse had been built at the Lizard, the dangers of the Wolf Rock, that lies between that point and the Land's End attracted the attention of the Trinity House. The rock takes its name from the wolf-like howling of the waves that once washed through it—noises that were silenced, years before the lighthouse was proposed there, by the superstitious fishermen, who, caring not for such uncanny music, filled up the cavity with stones. At first the idea of a lighthouse on the Wolf seemed impossible; the Eddystone lighthouse had been difficult enough to erect, and here were far greater difficulties to be encountered—less space on which to build, and less capability of landing materials. It was therefore proposed to fix on the rock the copper

figure of a wolf, which was to be so constructed that the air passing through it would produce the howling sounds which in times past had, to a certain extent, acted as a safeguard to mariners by warning them of the presence of danger. The figure was duly constructed, but the force of the waves that, even in smooth weather, broke over the rock, rendered all efforts to fix it ineffectual, and the idea had to be abandoned.

Then a bell-buoy—similar to that which the venerable abbot had placed on the Inchcape Rock—was suggested for the Wolf. But the fishermen did not like this; it would, they said, frighten the fish, and they threatened, were it put there, to cut it away. The fact is, the fishermen at the Land's End were, like their neighbours at the Lizard, not over anxious for any indication of danger—anything that would *prevent* shipwreck.

So the idea of marking the Wolf was, for a while, abandoned; but the progress in the science of lighthouse construction made during the early years of this century, and Robert Stevenson's successful erection on the Bell Rock, suggested that perhaps, after all, a lighthouse might be built on the Wolf. Stevenson was asked to consider the matter, and after doing so he undertook to put one there at a cost of £150,000. Why his offer was not accepted we do not know; possibly the figure was too high. At all events, instead of a lighthouse,

a beacon—first of oak and then of wrought iron—was the only indication of this treacherous rock till the year 1860, when the Trinity House, unwilling that the dangers of the Wolf should only be indicated by day, set about



WOLF ROCK LIGHTHOUSE.

erecting the lighthouse that now stands there, and which rises to the height of 110 feet.

It took nine years to finish, and certainly the task of building it did not prove *less* difficult than was anticipated. Every variety of engineering trouble presented

itself, but only to be overcome by those entrusted with the work. The ordinary reader could not grasp all these, even were they set out before him; but he can at least realize that, as but two feet of the Wolf Rock are dry, even at dead low water, the lighthouse builders can, at the commencement of their operations, have had but a remarkably short time each day available for work.

Earlier by far than any idea of placing a lighthouse on the isolated Wolf, was that for building one at the Land's End. This place was talked of as a western harbour for England in 1702, and an estimate for making one there, at the cost of £30,000, included the expenses of erecting a lighthouse. But nothing came of this harbour scheme, and three years later, high and low lighthouses were proposed at Porthdenack Point and on one of the headlands—probably that on the north—of Whitsand Bay. These also were never actually commenced. Perhaps it was felt that, whilst the Carn Bras—a mile to the west of the Land's End—and the group of rocks around it remained unmarked, to build lighthouses at the Land's End would not have been of much service. And who, in those opening years of the eighteenth century, would have suggested a lighthouse on the Carn Bras? True, Winstanley had placed such a building on the Eddystone; but the storm had soon

blown it bodily into the sea, and the stability of the second lighthouse there was still untried.

So the dangers of the western extremity of Old England were left to do their worst for home-coming ships for nearly a hundred years more; then the Carn Bras was marked by the now famous 'Longships' lighthouse.

This rock stands over seventy feet above the sea at low water, and the lighthouse upon it is, to the top of the lantern, fifty-two feet. The light, a flashing or revolving light, is produced by nineteen oil lamps, fitted with Argand burners, and there is in connection with the building a fog-bell and fog-explosive.

The situation of the Carn Bras is lonely in the extreme, but, so far as care and forethought can make it so, residence there is really comfortable. Besides the lantern, the lighthouse consists of three stories—the lowest for coals, water, provisions, and stores; on the second is the living-room and kitchen, and the third is the keepers' sleeping apartment. Three men are always in residence on the rock, whilst a fourth—regularly employed by the Trinity House—resides in one of the neatly kept cottages at Sennan Cove, set apart as homes for the keepers. This fourth man is in readiness to go at once to the rock in the event of his services being needed, to replace a keeper seized with illness or injured. No keeper is supposed to

stay on the Carn Bras more than four weeks in succession, though it often happens, especially in winter-time, that the 'guard' cannot be regularly 'relieved.'

This uncertainty in the communication necessitates keeping at the lighthouse a considerable store of provisions; more indeed—so, on one occasion, thought an economically minded and newly appointed inspector—than was actually necessary. A fortnight's provision on a place only a few miles from shore! The thing was ridiculous. He had come out to the Longships on a fine, bright morning, when the sea was docile as a tame cat, and had reached the lighthouse without difficulty or discomfort; had he possessed a little more experience, he would have known that the sea thereabouts soon loses its temper, that its smiles quickly change into angry scowls. As it was, he bought his experience that day, for whilst he looked carefully round the building, and lectured the keepers for their extravagance in demanding stores for so long a time, the sunshine of the morning was hidden, and the wind began to freshen. At first it only whistled through the lighthouse, and made louder speaking necessary, but soon it ruffled the surface of the water, so that the waves beat against the rock and the spray from them was driven up to the windows of the living-room. This did not look like getting back to Sennan Cove by noon, as Mr. Inspector had intended,

and ere long it was blowing a gale of wind. Then his heart sank. As for the keepers—well, history does not record their feelings; but as even officials are human, they must surely have chuckled (inwardly, of course) at the demonstrative lesson their recent lecturer was receiving as to the uncertainty of communication with the Longships.

Needless to say, the Sennan boat did not return for him that day, nor that evening; no, nor not on the next, nor the next, nor the next. Not till a week had run did the weather allow a boat of any kind to get near the Carn Bras. Poor man! let us hope he made the best of his incarceration; any way, it is recorded that he was not afterwards heard to complain of the keepers' foresight in ordering in a good stock of provisions at a time, a store that would leave a little margin in case of accident.

Those who have read James Cobb's fascinating story, *The Watchers on the Longships*, will notice how strangely the present orderly management of the lighthouse, and of everything connected with it, contrasts with the happy-go-lucky arrangements for maintaining the light that existed in the lawless days when first it was established. The philanthropic schoolmaster who lived hard by the Land's End, and by whose exertions the Longships lighthouse was established, was no creature of the

author's imagination ; and, with the recollection of Kille-grew's struggle against popular prejudice fresh in our minds, we can well believe that Cobb's powerful picture of life and sentiment amongst the Cornish wreckers is not over-painted.

No man did more to fight against this terrible 'custom' than the late Rector of Morwenstow, a desolate seaside village on the coast of North Cornwall. When he came there some sixty years ago, he found that not only the fishermen, but the small farmers whose farms lay near the coast, looked to the wrecks that happened to supply them, to a great extent, with food and household necessities, and they regarded anything which would lessen shipwreck more or less as an interference with their just rights and privileges. Worse than this, they did not hesitate to procure shipwreck. The men and women of Morwenstow were wreckers, and nothing better. It was right, they argued, to till their ground to get as fat a harvest as they might, and it was fair to lure ships to destruction, so as to make the most of the harvest the sea would bear them.

The rector's servants had a good store of wrecking and smuggling stories to tell ; some of them not reflecting too much credit on his predecessors in the rectory. Here is one of them :—

At Morwenstow and many other seaside parishes in

Cornwall it was the rule, if a shipwreck happened near by in service time, to bring word of it to the parson, who generally announced the fact to the congregation, and they, be it said, did not remain much longer to worship.

There was one parson who did not think this hasty departure quite fair on him, hampered as he was by his clerical robes. One day a piece of paper was handed to him as he read the service, on which was written news of a vessel driving towards the rocks below. The parson finished the prayers, but instead of going to the pulpit walked towards the font. The congregation never stirred ; they only thought their minister was about to perform a christening. The sound of the parson's voice coming from the west end of the church made them turn round, and there they saw him in outdoor attire, his clerical garb laid aside, and not at the font but at the door, his hand upon the handle. 'My Christian brethren,' said the reverend gentleman, 'there's a ship wrecked upon the rocks below ; *this time we ll all start fair ;*' and so saying, off he ran towards the rocks, his flock, you may believe it, following him pretty closely !

You could not get a Cornishman to look on wrecking as a crime. 'I don't see, sir,' said a very pious old parish clerk one day, 'why there's no prayers for *foul* weather ; we always prays for *fair* weather, but the foul

makes us richer.' How can you wonder at such a sentiment when Cornwall, or rather the Scilly Islands, had a good saint, St. Warna, who sent wrecks in time of distress, and to whom the people would pray for a demonstration of her mercy in exceptionally bad seasons !

CHAPTER XVII

THE SCILLIES



THE Scillies were the home of at least one religious fraternity in pre-Reformation days ; and surely, when we consider the situation of these islands, we may accept it as probable that the inmates of such houses—following the usual rule—displayed some kind of nocturnal light to aid vessels coming from the west or from Ireland. But this is only surmise ; the first we hear of a project for erecting a lighthouse on the Scillies is in 1661. The Trinity House then condemned the scheme, but twenty years later itself proposed an exactly similar thing, and obtained from the crown a patent to carry it out and to gather toll for its support. It so happens that at this latter date Sir John Clayton had also suggested a lighthouse in the Scillies, and he naturally wrote a stinging letter to the Trinity Board, taxing them with activity in the good work only when they feared that some

one else would undertake it ; but with that we need not trouble ourselves. The corporation, as we have said, got the patent and built the lighthouse. Some of the incidents in its building, and in the first few years of its existence, are interesting and characteristic, and illustrative of the life and spirit of Western England.

One of the first steps that the Trinity House took in the work was to write to Sir William Godolphin, then Governor of the Scillies, asking him to recommend to the surveyors being sent out, persons of local knowledge whose word could be relied on and who were not wreckers. This was certainly a wise step, for the surveyors found, on arriving, that most of the islanders regarded them 'with an evil eye,' and cared for light-houses no more than they did for 'crownors' inquests.'

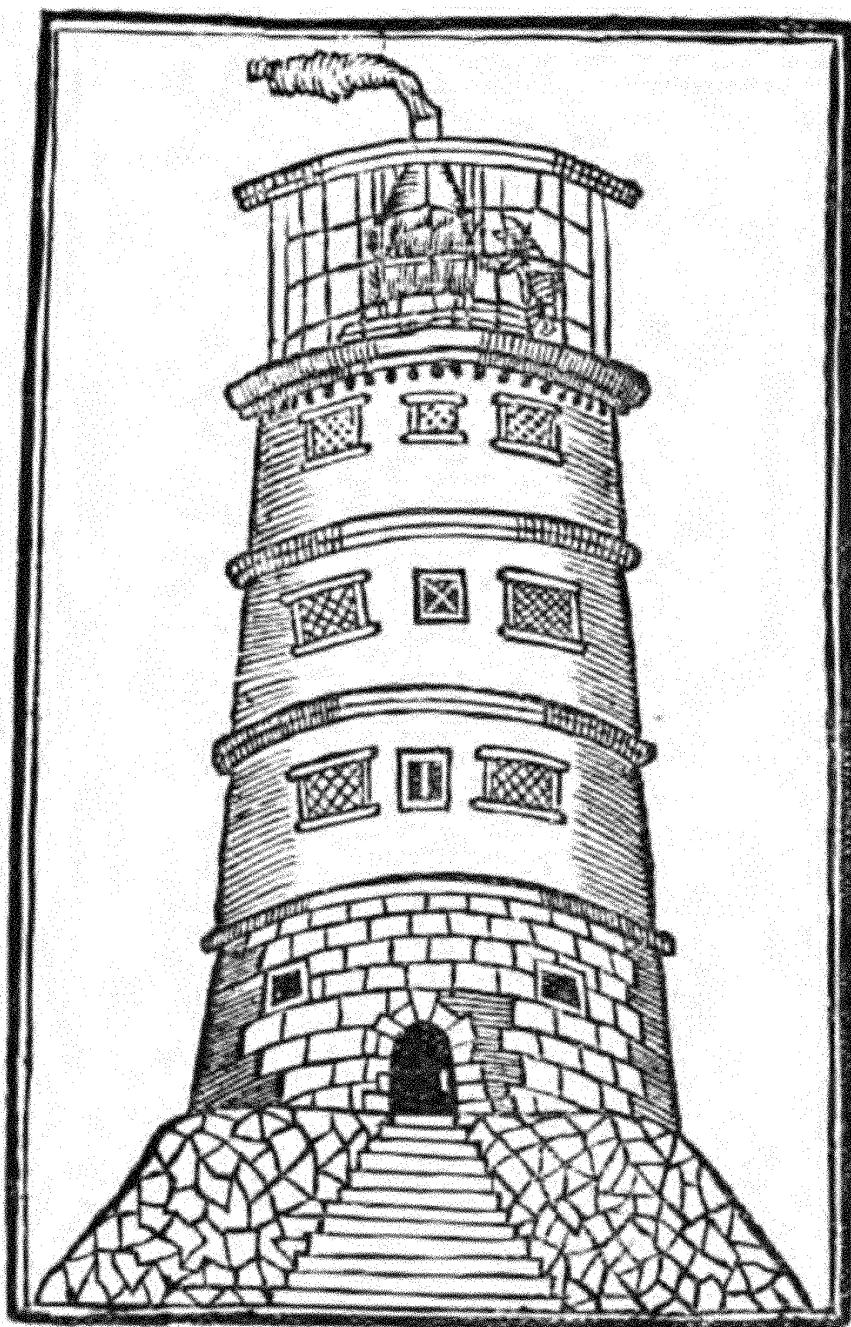
By the middle of May, 1681, all was ready for the surveyors' start: plans and drawings of the proposed lighthouse were prepared, and government so far assisted in the undertaking that it gave the Trinity House opportunity of purchasing any materials required from the naval stores at Plymouth; it also furnished the surveyors with one of her majesty's yachts to convey them to Scilly.

The lighthouse to be erected was to be certainly substantial—brick-built, circular, four storeys high, with walls six feet thick at the base, and all timber used was

to be 'of the best English heart oak.' Its solidity has paid, for the lighthouse at St. Agnes, Scilly, of to-day is, in the main, that put there more than two hundred years ago.

Altogether it was quite the most important lighthouse undertaking on which the Trinity House had as yet embarked, and 'it was with considerable anxiety that it awaited the arrival of the surveyors' first report; this reached the board on July 20, and told that all had so far gone well, and that a site for the building had been selected at 'Agnes,' some three miles from 'the Bishop and Clerk rocks.' The superintendent of the works was not over-pleased with his lodging, which, though the best the island afforded, he considered dear at half-a-crown a week, for it was, he said, but 'little better than a hogsty.'

Before the end of September the board heard of the completion of the lighthouse, and that a fire had been lit upon it, which was plainly seen from the Land's End. Eighty chaldrons of coal were ordered from Swansea, and the regular lighting was fixed for October 30 next, due notice to that effect being given in the *Gazette*, and at Billingsgate and the Custom House, whilst letters announcing the fact were also written to the English merchants in the Canaries, Spain, and Portugal. Last, but not least, collectors were appointed at the different



ST. AGNES LIGHTHOUSE, SCILLY ISLES.

*(From a receipt for lighthouse dues in the possession of Lord Kenyon,
dated December 19, 1690.)*

southern ports to collect the dues from incoming or outgoing ships.

The old receipts for the payment of such dues are interesting, from the representation they give of the lighthouse in question. The light was given, as the reader will notice, from a coal fire enclosed in a lantern, having a funnel in the roof : this is the earliest instance of one of these enclosed coal fires. It was not successful, as we know, for the smoke collected in the lantern and dimmed the light, and the fire needed constant attention to keep it bright ; it was, however, continued here for a long time, because it was economical.

But the Trinity House, before the year was ended, had to consider a difficulty in connection with the Scilly lighthouse much more serious than an insufficient or dim light—it had to consider the conduct of an unfaithful servant. It had wisely declined to appoint as keeper any one born and bred in islands where it was well known that the inhabitants preyed on human life and lured mariners to shipwreck ; but it unfortunately did not suspect danger from one who had only gone out to live there since the lighthouse had been in progress, and this want of suspicion led to the appointment of a man who before three months had elapsed proved himself to have become a *wrecker*.

One dark and rainy night, just before Christmas, 1680,

the fire on the Scilly lighthouse, which home-coming vessels had been told to expect, did not shine forth. On came a richly laden ship, sure of her position and safety, as no light was visible, and only when too late was warned by the sound of the waves as they broke upon the rocks, of her proximity to the reefs that lie around the Scillies. To attract attention and bring help she discharged her cannon, and then, but not till then, the fire on the lighthouse shot up bright and clear. Doubtless the keeper and his accomplices had watched the lights of the approaching vessel, and allowed the fire to slumber till she was actually upon the rocks: then, in the hope, perhaps, of escaping condemnation, should the matter reach the ears of his employers, he fanned his fire into flame. But his ruse did not succeed, nor could it well have done so, since he was found, but a few hours after, in company with the greedy band of wreckers on the rocks, and much of his plunder was subsequently discovered hidden in the heap of coal that stood ready for use beside the lighthouse.

Similar troubles ensued with subsequent keepers, though no such flagrant case was discovered; but it was often needful to caution those engaged in looking after the lighthouse to avoid 'meddling with wrecks,' which, despite the presence of a lighthouse, seem to have been not infrequent, and to avoid 'drinking' and the

company of wreckers. There is other evidence that for a long time to come the keepers were too much hand and glove with the inhabitants of the islands to avoid suspicion. Altogether this first lighthouse that the Trinity House had built for fully fifty years, and certainly the most elaborate one, cost the board a good deal of annoyance and a good deal of money; so much of the latter, that the Duke of York, then master, was asked soon after its erection graciously to 'forego' his annual allowance on account of the poverty of 'the House,' which he graciously did.

It will be remembered that in the autumn of the year 1707 Sir Cloudesley Shovell's vessel, and the fleet accompanying it, were cast away on the Scillies, Sir Cloudesley and many others perishing. On that occasion the keeper of the lighthouse took time by the forelock, and, quite as soon as news of the disaster reached London, there came from him an assurance as to the 'goodness' of his light when the wreck occurred. The board made no answer till it had heard some of the sailors who escaped, and these all agreed that, on the occasion, the light was dim in the extreme, owing they believed, to 'the foulness of the glass.'

The admiral's body was carried by the tidal current to Porth Hellick, and there found burial till it was exhumed and removed to its present more dignified resting-

place in Westminster Abbey. If you go to Porth Hellick, the fisher-people round about will show you the very spot of his temporary burial — not a blade of grass grows upon it! If you ask them they will tell you the reason. A Cornish sailor, on board the admiral's ship, warned the officer in command of the nearness of the rocks of Scilly, and bid him beware. This was intolerable, and the man, though he had ventured, from his local knowledge, to tell his superior of approaching danger, was judged by Sir Cloudesley guilty of a gross breach of discipline, and ordered forthwith to be hanged at the yardarm. Here he was hanging when the vessel struck the rocks. Of course tradition says that the disaster was but a due punishment of the admiral for his injustice and a response to the curses of the sailor, who had before his execution repeated the 109th Psalm, and made its imprecations applicable to those at whose hands he was dying. Sir Cloudesley, so the story goes on, was not drowned in that shipwreck, but was washed ashore, exhausted from exposure, close to the spot in question. On his finger glistened a diamond set in a most precious ring: the man who found him could not resist this wonderful heaven-sent gift, and, lest the wearer should hinder him from getting it, battered out of him the little remaining life he possessed, and buried him in the sand.

There is a common Cornish superstition that over a sinner's grave the grass will not grow; and that is why the ground which covered the admiral's body still lies bare. Mark the deliciously national sentiment displayed in the story. The murdered man, not the murderer, is the sinner! It was no crime in the wrecker's law to slaughter a man, or a woman either, on whose body was valuable jewelry or costly raiment; the worth of that jewelry or raiment was regarded, as Sir John Killegrew told Carleton, as 'God's grace' sent to them!

If you dip into Cornish legend you will see this illustrated over and over again. And more: not only was it no murder to kill the living man or woman who might hinder you from gathering in the harvest of the sea—the harvest that God sent you: it was no murder to kill the revenue officer who tried to stop you in gathering the harvest your illicit trade sent you. The graves of some of these officers used, a couple of generations ago, to be shown in the Cornish churchyards, bare of grass, and the reason was that those who lay beneath them were murderers—murderers because in doing their duty to their king and country they had brought to the scaffold some notorious smuggler who likely enough, as a wrecker, had slaughtered some half-drowned victim of shipwreck to strip his body!

But this is a digression ; let us resume our narrative of St. Agnes lighthouse.

As a result of the lax keeping of the lights, Whiston's mad proposals were made to Parliament in 1716 ; he suggested that from one of the Scilly Islands there should be discharged into the air, at intervals throughout the night, huge fire-balls, to warn mariners of their whereabouts. But people only laughed at his suggestions, and nothing came of them.

Later on we hear that the 'badness' of the Scilly lights was 'the talk of the Exchange' ; and indeed it seemed that each successive keeper fell more or less into the evil habits of his predecessor : the idle life led many into drunken habits, and that probably accounts a good deal for the lax keeping. 'You drink so much,' wrote the Trinity House Secretary to one keeper, 'that you are not fit for business.' This was in 1740, and the particular keeper was no doubt the man referred to by Robert Heath—a writer on the Scilly Islands in 1750—as having kept his fire so badly that often it was scarcely visible on the neighbouring island of St. Mary. 'Some,' continues Heath, 'think that often this keeper left his fire *unlit* all through the night,' or else kept it so low that by daybreak nothing but lifeless embers filled the grate.

However, things mended soon after this : the Trinity



THE BISHOP'S ROCK LIGHTHOUSE.

House placed better-class keepers at St. Agnes—men of better education and less likely to be contaminated by the ill-example of the inhabitants of the islands ; and after the closed-in coal fire had been changed, in 1790, for a powerful oil lamp, we hear no more complaints about the Scilly lights. The then owner of the islands bought the cradle, or grate, in which the coal fire had burned, and turned it into a flower-stand, which he placed in the wonderful gardens at Tresco, where it may still be seen—certainly it is an interesting relic.

The lighthouse at St. Agnes remained the most westerly in England till the year 1858, when that on the Bishop's rock was erected ; it is a massive structure of grey granite. A much less solid erection—similar in construction to that upon 'the Smalls,' of which I shall presently speak—was all but completed some eight years before ; but on the night of February 6, 1850, the whole affair was demolished by the force of a storm which snapped off the iron supports that had been fixed into the rock, as though they had been so much matchwood.

CHAPTER XVIII

LIGHTHOUSES ON THE WESTERN COAST



AFTER turning the south-west corner of England we find few existing lighthouses with anything like respectable antiquity; indeed, the voyager along our western shores of a century and a half ago was almost entirely without lights to guide him. At the monastic dissolution, however, matters were probably otherwise; one of the few lighthouses mentioned by Leland as surviving the commencement of the religious changes is at Pendinas, or Cape Cornwall, near St. Just: 'There is,' he says, 'at this point a chapel of St. Nicholas and a pharos for light for shipps sailing by night in those quarters.' Then we have seen that the monks maintained lights at Ilfracombe¹, and the number of ruined chapels and hermitages along both the southern and northern banks of the Severn, on the islands in its

¹ Chap. i. p. 24.

midst, and on the coast of South Wales, leaves us in little doubt that, when these buildings were tenanted, and discharging the functions for which they were intended, the mariners' path was not unlit.

Before, however, we come to talk of lighthouses to the north of the Bristol Channel, the story of that of Burnham, at the entrance of the port of Bridgewater, must be told. There was no lighthouse there till early in the present century, but the small craft—fishing boats and the like—could, after nightfall, shape their course so as to avoid some treacherous banks by means of a light placed nightly in a fisherman's cottage on the sandhills close to the sea ; it had been first put there, years before, by a fisherman's wife to show her husband where to anchor his boat on return from fishing. But at the time of which we speak it no longer served that purpose, for the fisherman had ere that found a watery grave. The wife was then a tottering widow, crazed by the grief that her husband's death had caused her, and one form of her insanity was that he would yet come back, and so, night by night, she trimmed the lamp and placed it in the window that he might find it burning when he brought his boat to shore. Then it pleased God to rest her troubled spirit, and the lamp was lit no more.

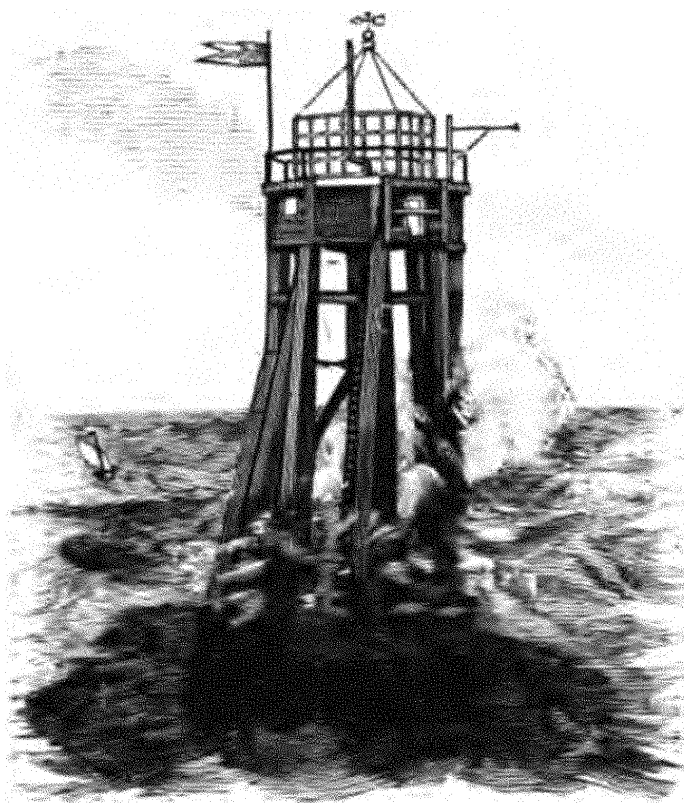
No mariner's chart marked the widow's light, but the fishermen of Burnham had learnt to know it and to

appreciate its benefit in making the port ; so when it ceased to burn they set to work to see how a similar or a better light might be maintained there, and the parson of the place, more perhaps out of good-nature than from an eye to business, offered to build a small lighthouse if they and others using the port would contribute some trifling sum towards its support. They consented, the patent was obtained, and the parson duly built his lighthouse. Certainly he can never have regretted doing so, for the trade of Bridgewater increased, the tolls yielded him quite a respectable income, and when, after an existence of some thirty years, it was acquired by the Trinity House he got £13,500 for his rights.

That is the story of Burnham lights : the lighthouse one sees there to-day was put up in 1836, very shortly after the Trinity House had bought out the parson. About the other lighthouses on the Bristol Channel, on either bank, there is not much to say, so we will pass on to consider some of those on the Welsh coast.

Probably one of the first attempts to erect a lighthouse here, as an object of profit, was not made till fully sixty years after such an undertaking had been projected for the east coast. In 1662, and again in 1665, petitions to the crown requested leave to set up lighthouses on St. Anne's Head, at Milford Haven. A patent was duly

granted and the buildings erected, but—likely enough through opposition in the usual quarter—the lights therein were not maintained, and the buildings fell into decay. The scheme was, however, successfully revived in the closing years of Queen Anne's reign, Joseph Allen, the then projector, paying the Trinity House £10 a year in order to stop opposition—as things went, he got off cheap.



THE SMALLS LIGHTHOUSE.

Another sixty years or so after this, 'the Smalls'—a group of rocks off St. David's Head—were first marked by a lighthouse. The project to put it there was a bold one, and surely would never have been dreamed of had

Winstanley not taught lighthouse projectors that isolated rocks might form a field for their labours. The proposal came from a wealthy Quaker merchant at Liverpool named Phillips, who said it was his mission in life to perform 'a great and holy good to serve and save humanity.' How could he better do this than by building a lighthouse, and by building it on the then almost unlit coast of Wales? It was just the kind of profitable philanthropy that a man of his tenets would love to indulge in—there was money to be made and good to be done by it.

Call to mind for a moment the period when this wealthy Quaker set about carrying out his design, in the year 1775, or about that time: there were then plenty of experienced engineers in practice—John Smeaton, to mention one—and Liverpool possessed its share of them. But to these the Quaker did not turn: they would have their own ideas on the subject of lighthouse building, based on practice and scientific principles; he had his, based on economy, and so he went, not to an engineer, but to one Henry Whiteside, a maker of musical instruments; he might not know much about lighthouse building, but he would be 'cheap,' and in the construction of his violins, spinettes, and harpsichords he displayed considerable ingenuity.

Whiteside was young and enterprising, he liked the

idea of the work proposed to him, and before many months had passed he had laid aside his half-finished musical instruments, and was on the Smalls with a gang of Cornish miners, quarrying sockets in the hard stone into which were to be fastened the iron pillars that the lighthouse was to stand upon.

Perhaps the good folk who lived along the coast gave a no more genial welcome to Whiteside and his workmen than had the men and women of the Lizard and of Scilly to the lighthouse builders of the seventeenth century; perhaps they avowed that a light upon the Smalls which would warn vessels from their doom, would take 'God's grace' from them; any way they do not seem to have given the fiddle-maker many useful hints as to the vagaries of the waves that washed around the Smalls. They told him the rock stood twelve feet above high-water level, and on that assurance he and his men set to work through the calm days of summer, finding but little to hinder them in their labour. From summer they worked into autumn, and on till October winds ruffled the waters of the Atlantic from hillocks into mountains, and drove an occasional wave as many feet above the Smalls as Whiteside and his men had been used to see them wash below it. The first big storm came up somewhat suddenly: the men were at work, and had so far progressed that they were getting into

position the first of the iron rods that were to support the structure. To this they clung as shipwrecked sailors cling to the masts of their shattered ships. Their cutter, whose crew had evidently no sympathy with the workmen or their work, made sail on the approach of the danger, and left Whiteside and his men to shift for themselves.

All through that night the storm raged, every hour that passed angering the waves, driving them over the rocks with greater fury and drenching those clinging to the bending iron rod. Only when the tide had ebbed to its lowest dared they relinquish their hold. Escape from the rock was impossible, for no vessel could come near them in such a storm ; but Fortune smiled, and before the close of the next day the sea had so far calmed down that their boat came to them and, wonderful to relate, every man was brought safe to shore.

Their experience taught them that some material more elastic than iron would have to be used in the construction of the lighthouse if it was to stand against an Atlantic gale. As soon, therefore, as he got to shore, Whiteside set about obtaining the requisite heart of oak, and with this he and his builders returned to work, but before beginning to set up their supports they soldered into the rock a number of iron rings, to which they could lash themselves for safety should another storm—such as that they had tasted—drive the waves over the surface

of the rock. History does not record if this happened or not, but it probably did before the completion of the work, for that was not accomplished till just before August 1776, when the light in the lantern was first lit, and showed at a distance of seven or eight leagues.

Strange and fragile-looking enough, as the reader may see, was this lighthouse built by Whiteside, but it was 'seaworthy,' and stood till recently.

The charm of danger weaned Whiteside from his love of the gentle art of fiddle-making, and he practised it no more, but became the Quaker's lighthouse keeper at the Smalls. He managed it profitably for his master—let us hope he did it efficiently; but he burned in his lamps on the average only 200 gallons of oil during the year.

The dues soon brought the Quaker in a handsome income, and with that he was satisfied: he took no personal interest in the lighthouse or its management, all which he left to a care-taker who lived hard by St. David's Head. Knowing, as this man must have known, how uncertain was the communication with the Smalls, he should certainly have taken care that his men on the rock were well provided with materials for maintaining the light and with provisions for their own support. But there is evidence that he did neither one nor the other, and that Whiteside and those with him

undoubtedly felt the neglect. Still, though the wind might rock their dwelling, and drive the spray far above it, and though they might sometimes regard their lot as hard and complain of it as solitary, they seem, during the first twelve months of their residence, to have been but once in actual alarm for their personal safety. Whiteside's letter, and his men's postscript, written on that occasion, will best describe their feelings, their evident anticipation of a fate similar to that which, some seventy years before, had befallen the inmates of the Eddystone :—

‘ FROM THE SMALLS,

‘ *February 1, 1777.*

‘ SIR,

‘ Being now in a most dangerous and distressed condition upon the Smalls, do hereby trust providence will bring to your mind this, which prayeth for your immediate assistance to fetch us off the Smalls, before the next spring [tides], or we fear we shall perish, our water near all gone, our fire quite gone, and our house in a most melancholy manner.

‘ I doubt not but you will fetch us from here as fast as possible. We can be got off at some part of the tide, almost any weather.

‘ I need say no more, but remain your distressed humble servant,

‘ HY. WHITESIDE.

‘Postscript. We were distressed in a gale of wind upon January 13, since which we have not been able to keep any light ; but we could not have kept any light above sixteen nights longer for want of oil and candles, which makes us murmur and think we are forgotten. We doubt not that whoever picks up this will be so merciful as to cause it to be sent to Thos. Williams, Esq. Trelethin, near St. David’s, Wales.’

Placing their letter in a bottle, Whiteside and his men flung it into the sea, offering up a prayer as they did so that it might reach land and come to those able to help, ere it was too late ; let us hope that their prayer was answered. At all events there is no record of the dwellers on the Smalls having perished on their insular home. Let us hope, too, that after this a more generous allowance of food for the keepers and of oil for the lamps was permitted. But all we know for certain about the subsequent management of the lighthouse is that only two keepers were kept there. This, no doubt, was economical, but the system possessed serious drawbacks, as we shall see by the following incident—one of the most exciting and melancholy in lighthouse history.

Some five-and-twenty years after the erection of the lighthouse at the Smalls, there came about, one autumn, a spell of exceptionally stormy weather, and no communication was had with the rock for four months.

People on shore grew naturally anxious, and the lighting of the light was eagerly watched for as each day closed in. Would the stock of oil hold out another night? or would the food supplies for the unhappy men enable them to keep body and soul together, so that they might discharge their duties? These were the questions on every one's lips, and the safety of the lighthouse keepers at the Smalls was the talk of every town and village in the neighbourhood. Time after time efforts were made to carry relief to the lighthouse, but all were fruitless: for miles round the rock the sea ran so high that no boat could possibly have lived in it. All that could be learnt was that crouched in the corner of the gallery running round the lantern was one of the keepers; despite the blinding snow and bitter cold, there he was whenever a boat got within sight of the building.

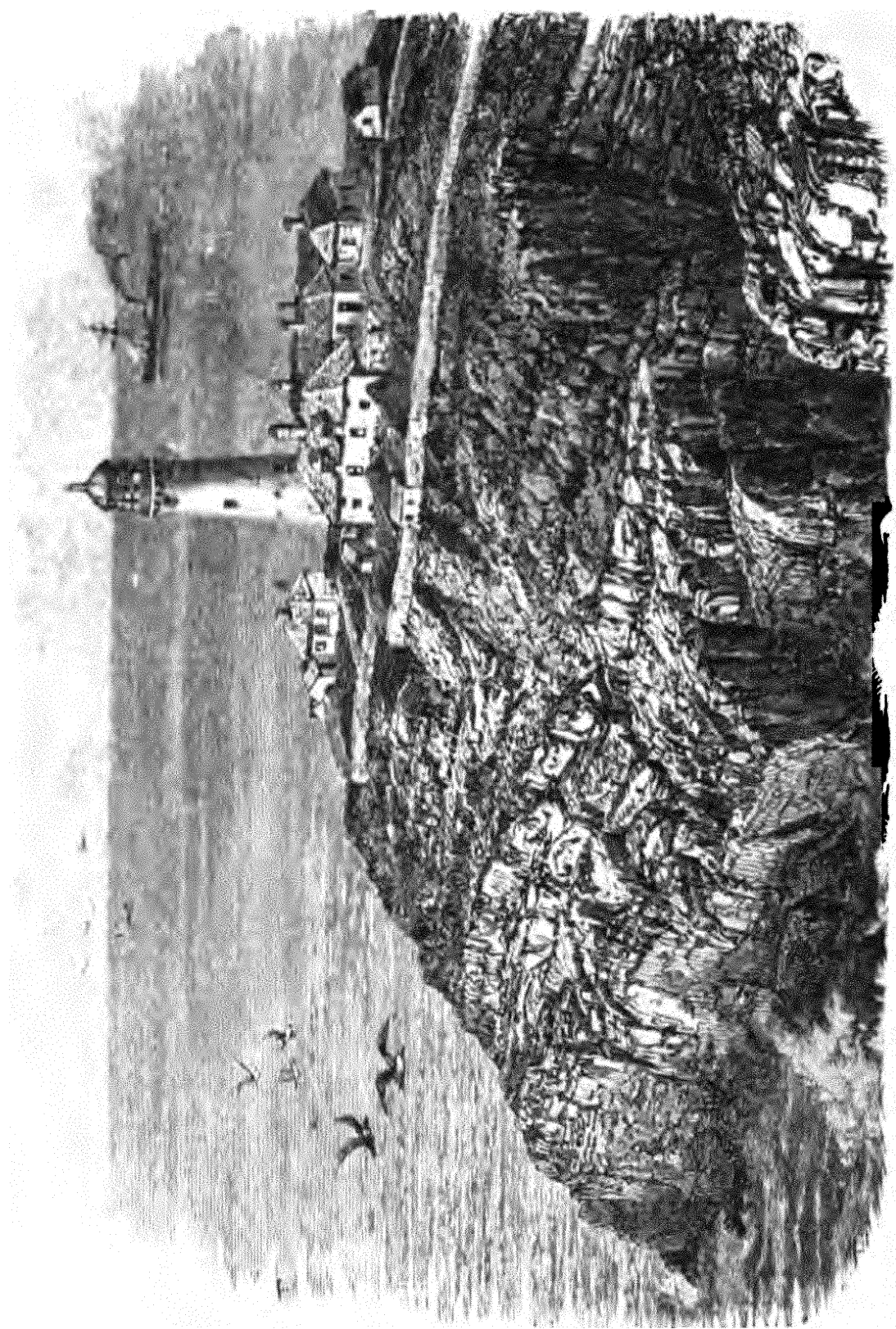
What could it mean? Had the wretched man lost his reason, and been driven by privation and the ceaseless cry of the tempest into a hopeless lunatic who refused to quit the station he had taken up? It was idle to speculate; all that was certain was that at least one whole and sane man remained upon the rock, for the light was regularly lit at nightfall, as could be seen from the shore, and those that brought news of the crouching figure seen in the lighthouse gallery declared that no light was burning in the lantern by day.

At last came a lull in the storm, the cutter reached the lighthouse, and brought from it the two men—one alive the other dead. Sickness had seized the dead man almost at the outset of the tempest, and despite the care of his companion his illness terminated fatally, and left the living soul that now returned to shore to endure a loneliness a thousand times more lonely and more horrible from the fact that it was passed with a lifeless body. He dared not commit that body to the waves ; had he done so, the suspicion of murder must infallibly have rested on him ; and who could then have lifted from him the mantle of suspicion ? There was nothing for it but to live with the corpse till help arrived from shore, and so he did the best thing he could under the circumstances, and lashed his dead mate to the ironwork of the gallery that ran outside the lantern—this was the crouching figure that had been seen through the sleet and snow by those who got within sight of the lighthouse.

Subsequent isolations of the Smalls have taken place—some for lengthy periods ; but no such gruesome incident has attended them. Nor, indeed, could it well do so, for a rule was soon afterwards put in force for this lighthouse, by which *three* persons were always on duty there. The wisdom and charity of this arrangement—which was soon afterwards generally adopted at isolated lighthouse stations—has been since constantly demonstrated, and

most of us will recollect that within the last two or three years illness seized one of the keepers at the very lighthouse of which we have been speaking, during a storm that precluded communication with the rock for a considerable time : the sick man's lot was, of course, far less hard from the fact that whilst one of his companions was on duty, the other could minister to his wants.

Not long before the acquirement of this lighthouse by the Trinity House it was almost demolished during the fury of a storm ; the boards of the floor of the living room, beneath the lantern, being forced up so close to the ceiling that one of the men was almost crushed between the two before he could extricate himself from his perilous position. After this, the erection of a lighthouse at the Smalls more stable and more fitted for the comfort of its inmates was undertaken : a granite tower was completed in 1885, and it is certainly quaint to compare the accounts of the building of this lighthouse—directed by the Trinity House engineer and carried out by a band of from fifty to sixty skilled workmen—with the primitive arrangements and appliances with which, a century before, the Liverpool fiddle-maker and his half-dozen Cornish miners had set up the first lighthouse there. But this comparison must not create in our minds any contempt for the earlier enterprise so pluckily carried out.



LIGHTHOUSE AT HOLYHEAD.

Leaving the Smalls, we pass on to the coast of North Wales, where a lighthouse was proposed early in the reign of Charles II. There is amongst the State Papers of that reign a petition, dated in June, 1665, to erect 'a double lighthouse,' *i. e.* a high light and a low light, at Holyhead; but there is no record of this petition being granted, or of any lighthouse being then established there. Legend tells us that the ancients had a pharos at this point, but within historic times the headland was unlit until, comparatively speaking, recently.

Seven miles NNE. of Holyhead lie the Skerries, and the dangers, the treachery, of this far-stretching shoal attracted the attention of the lighthouse builder at a very much earlier date than the erection of the lighthouse at Holyhead; indeed, we first hear of lighting the Skerries in a scheme brought before Cromwell's Council of State in 1658, for rendering possible the nocturnal navigation of St. George's Channel. The scheme emanated from a certain Henry Hascard, who spoke from experience of the need of what he proposed, as he had been 'for long employed in the Irish trade.' The Council admitted the necessity of the scheme, but nothing appears to have been done to carry it into effect.

Again, in 1662, a lighthouse on the Skerries was proposed independently; but the difficulties of the undertaking and the opposition of Trinity House crushed the

proposal. Then, thirty years later—after the Eddystone lighthouse had been set up—the proposal was renewed ; but the Trinity House still opposed the suggestion, though it offered itself to erect a lighthouse on the Skerries if the ‘ Irish trade ’ would give a definite promise of contributing. This the traders would not do, and the scheme was not finally carried through till the year 1714, when a wealthy and enterprising merchant named Trench, who was the leaseholder of the islands, built a lighthouse there at a cost of fully £3,000, saying that the thing was needful, and that he would take the risk of loss. Poor man, it was a bad speculation for him : his son lost his life in its construction, the traders managed in different ways to evade the payment of the lighthouse dues which his patent authorized, and ten years later he went to his grave a ruined man. After his death, the patent passed to a married daughter, whose husband tried in vain to get enough toll to support his light, and then sold the rights for a mere song.

But the purchase was a fortunate one for the purchaser, or for his descendants or assigns ; increase in traffic to Ireland, and a better machinery for gathering the lighthouse dues, turned the Skerries light into a very profitable possession : and one cannot read of the vast sum of £445,000, paid by the Trinity House to the

owners in 1835, without a sigh of regret for the ill-luck of the original builder of the lighthouse.

There is, as the reader will see on looking at the map, hardly a more useful lighthouse for the Irish navigation than the Skerries ; but it did not do all that was needed to make safe nocturnal passages in St. George's Channel. The Isle of Man, girt round as it is with innumerable rocks and islets, must have formed a serious obstacle to safety in crossing to Ireland before any lighthouse was placed there ; and it is not strange to find a warning light on the Calf of Man, forming part of the scheme of 1658 already mentioned ; though it is remarkable that Hascard only suggested its being illuminated during 'the six fairest months of the year.' Probably the meaning of this is that during the winter season communication between England and Ireland was then regarded as practically impossible—no vessel would attempt it.

Hascard's scheme was supported by the mariners of Chester, Liverpool, and other ports in the north and west, but opposed, as we have said, by the Trinity House on the old grounds that its maintenance would add to the already too heavy burdens put upon the ship-owners, though it must be said that, in 1664, the 'brethren' were induced to admit its utility, if a proper check was put on the amount of the contribution demanded ! However, nothing came of the suggestion for

a lighthouse on 'the Calf,' and none was put there till the last century ; in fact, the only assistance that sailors of the eighteenth century received in their passage to Ireland by night was the benefit of two or three lighthouses at the entrance of the port of Dublin.

We have now gone nearly round the coast of England in the survey of our lighthouses, and the part that we have yet to travel—that north of the Skerries—possesses exceedingly few about which there is much to say. Indeed, the almost entire absence of any lighthouses on the west coast, set up during the late sixteenth and the seventeenth centuries, is a noteworthy feature in the history of the subject with which we have been dealing. It certainly points very strongly to the smallness of the west coast trade in those days. What lights the religious houses of Wales, and of Cheshire, Lancashire, Cumberland, and Westmoreland, may have supported, out of charity, we do not know ; but, whatever they were, or wherever they were situated, no early attempt was made to re-erect them after the religious changes had snuffed them out.

Late in the seventeenth century, as the trade of Chester and Liverpool rapidly increased, some attempts seem to have been made to place lights at certain points along the shores of the Dee and the Mersey ; but the majority of lighthouses that we now see north of the Skerries

have barely a century of history of which to boast : the most northerly in England, on the west coast, St. Bees, was established in 1714 as an open coal fire, and this form of light was continued there till within a hundred years ago.

So ends the present attempt at giving a history of coast lighting in this country, by recalling incidents connected with the erection and existence of some of our more famous lighthouses. The subject is an interesting and, in a sense, a romantic one ; moreover, it has hitherto received but scant attention, save from a purely scientific point of view, and from that we have not ventured to regard it. The picture of the coast of England lighted by charity, and of its being for many years hardly lit at all, is a novel one, and becomes the more curious as we realize what must have been the effect of such a condition of affairs.

Again, the picture which reveals every obstacle being thrown in the way of assisting navigation by means of nocturnal lights, appears strange to modern eyes, whilst the harsh and selfish condemnation as useless of lighthouses, which experience has taught us to regard as essential to the safety of shipping, falls somewhat dis-

cordantly on modern ears. That these obstacles and prejudices were, in most instances, successfully overcome is to the credit of those who overcame them, whether the particular project was undertaken out of charity or in the hope of private gain. Indeed, it may be safely said that the history of many of our English lighthouses reveals what pluck, and skill, and perseverance will accomplish, and is, for that reason if for no other, well worthy of careful study and full record.

THE END.

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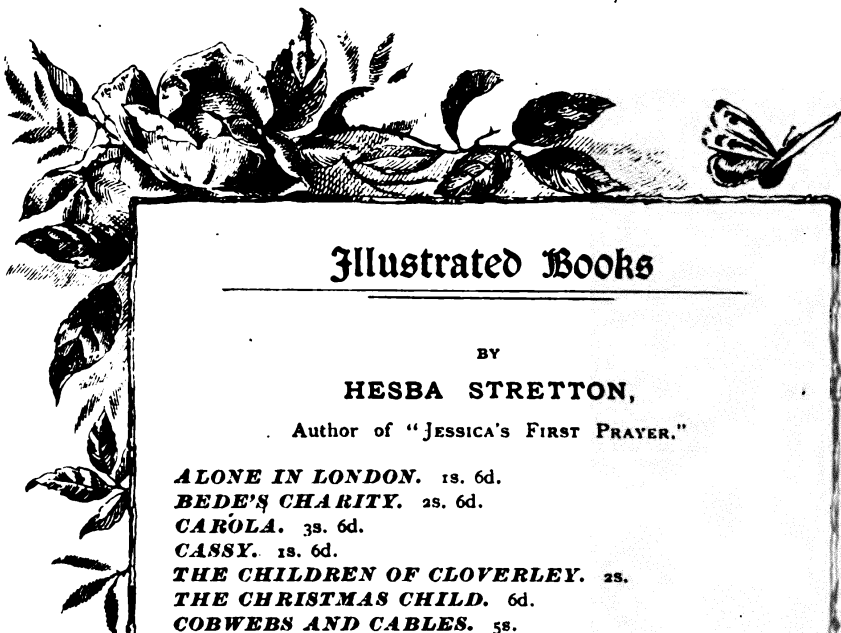
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