

## HALLSANDS AND START BAY.

### PART III.

BY R. HANSFORD WORTH, M.INST.C.E., F.G.S.

(Read at Salcombe, 12th July, 1923.)

WRITING, in 1904, after the first disaster at Hallsands, and when the new sea-walls had been built, I said: "So long as the sea-walls stand—and they seem secure—some of the houses are safe. But any gale of severity equal to the 1891 blizzard will probably remove several houses from behind the sea-wall."

It was a view somewhat too hopeful, a strong easterly gale coincident with high spring tides has since proved that the sea-walls were indeed secure, but only one house in the village was safe, and even that one was endangered.

On the 26th January, 1917, it became evident that a gale then blowing from the N.E. threatened the village of Hallsands. One of the first houses to be damaged was owned by Mr. Holdsworth and occupied by Mr. John Steer. This house spanned a little recess in the rocks, closed on the seaward side by a concrete sea-wall, and filled behind the wall with sand and some coarser material. A gap was broken by the waves in the rock against which the short sea-wall abutted, leaving a hole by which the sea gained access to the space behind, and thus washed out the sand and other filling which supported the house. As a result the front wall collapsed.

It will be found later that this is one instance of many in which rock surfaces, formerly covered by beach, have, since the beach has been removed, been unable to withstand the unaccustomed assault of the waves. In this instance the portion of rock removed did not adjoin the sea-wall but was slightly distant from it.

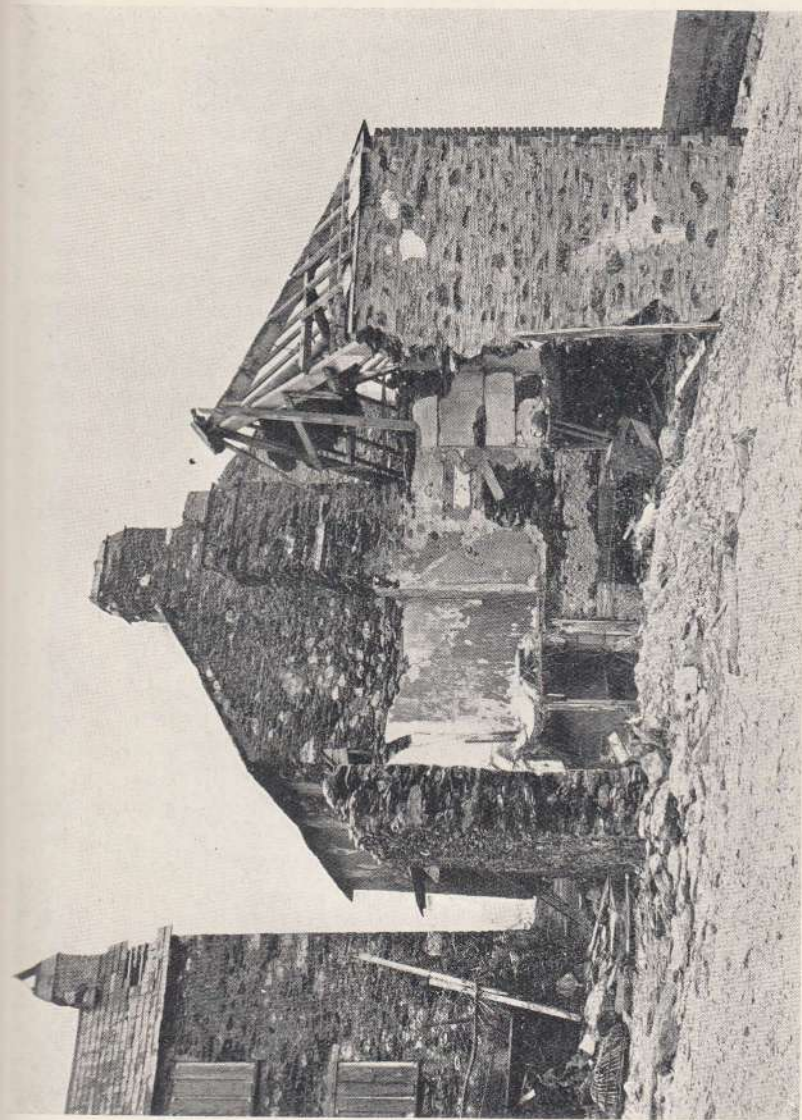
On the previous day the next adjacent house to the

north had lost a room, not as the result of any failure of the foundation, but in consequence of direct blows from green seas. Three other houses were wholly destroyed on the night of the 26th January, and many properties damaged, practically every house suffering. So certain was the fate of the village that its inhabitants recognised the necessity of abandoning it. The seas broke green upon the sea-walls, they swept across the village street and burst open the doors on the far side, in some instances so flooding the ground-floors of the houses that very real danger attended the attempt to occupy other than the upper rooms. Mr. George Trout was only able to save himself from being washed out of a house on the far side of the street by catching hold of the door-jambs as he was carried past them. The upper floors presented their own particular disadvantages, in that falling masses of water broke down the roofs. The southernmost house of the village presented complete evidence of the height to which the waves reached. The front wall, facing the sea, was a new construction, built in cement mortar, it resisted the sea, but the waves rose over it, broke down the roof and knocked over the back wall (Plate I).

True to their precedent in the earlier disasters, of 1903, the people of Hallsands for the more part remained until their houses were falling about them; in fact, none deserted the village who had not been rendered homeless. When at last the utter hopelessness of their circumstances had to be recognised, there were yet some hours during which the village could not be abandoned. With an unscalable cliff behind, unscalable at least when washed by the waves, with a flooded street, sea-swept, as the only alternative, and in either event the practical certainty of destruction, there remained but to await, in the shelter of battered houses, the fall of the tide and the withdrawal of the waves. Midnight of Friday the 26th saw the abandonment of the village, the inhabitants removing such of their furniture and household goods as they could transport. The next high tide, on the Saturday morning, brought the destruction of all that remained of Hallsands, one house excepted (Plate II—Southern end of village).

The gale which wrought this havoc was by no means of an equal violence to others which Hallsands had safely weathered before its protective beach had been removed.





*R. H. Worth, photo.*

SOUTHERNMOST HOUSE IN VILLAGE, AFTER STORM OF JANUARY, 1917.

The Great Blizzard of March 9th, 1891, resulted in many wrecks at Start Point and in the Bay. The "Marana" and "Dryad" were lost on the Start. The schooner "Lundesdale" went ashore at Beesands, and the "Lizzie Ellen" at Hallsands. In the attempt to save the crew of this last-named vessel six fishermen especially distinguished themselves. Great damage was done on the south coast. At Brixham two hundred feet of the Breakwater were washed away. At Dawlish the Ladies' Pavilion on the beach was destroyed. At Mevagissey £10,000 worth of damage was done to the harbour works. At Paignton the landing-stage of the Promenade Pier was washed away, and the sea-wall in front of Redcliffe Tower was undermined. At Teignmouth the sea made considerable encroachment, and the road-way was undermined and washed away opposite Den House. The wind ranged from N.E. by E. to S.E., and its effects on land were out of all proportion to the damage done by the storm of January, 1917. In particular the storm of 1891 swept down whole groves of trees, whereas in 1917 only an occasional tree fell. The better to emphasize the former immunity of the village it should be noted that the storm of 1891 occurred during high spring tides, although not quite on the top of the springs. From this storm, of 1891, the most violent of our times, the village of Hallsands emerged with only such minor damages as a few loose slates.

Except by comparison with the Great Blizzard to which I have referred, the gale of January, 1917, would itself be classed as severe. On the 27th January, 1917, wind velocities in gusts were recorded as high as 69 miles per hour at Scilly, 74 miles per hour at Plymouth, and 83 miles per hour at Pendennis Castle. Such velocities are not really rare. I find them exceeded in 1916, 1915, and 1914, and equalled in 1913, which is as far back as I have searched. In one hour at Pendennis Castle, on the 27th January, 1917, the east wind travelled 65 miles, the corresponding value at Plymouth was 40 miles. Its force thus varied from 8 to 11 on Beaufort's scale.

The essential feature was not the violence of the gale, considerable as this was, but its coincidence with high spring tides. I am informed that at Dartmouth the sea rose above the New Grounds Quay, or to at least 9' 0" above Ordnance Datum. By the courtesy of the officials of H.M. Dockyard, Devonport, I received the following records of



the high tides of 26th and 27th January, 1917, as shown by the self-registering gauge :—

26th January :

Morning tide, 18' 0" (9' 7" above O.D.) at 8 a.m.

Afternoon tide, 16' 6" (8' 1" above O.D.) at 8.30 p.m.

27th January :

Morning tide, 17' 5" (9' 0" above O.D.) at 8.45 a.m.

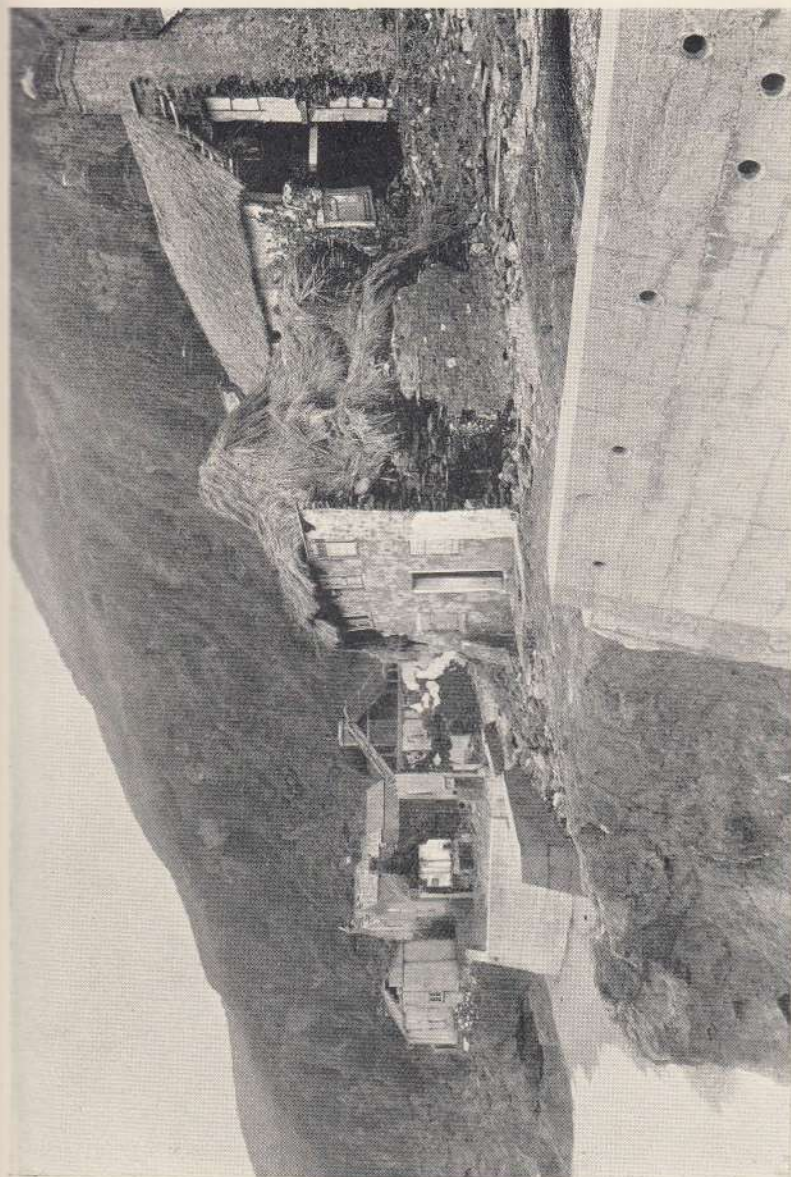
Afternoon tide, 16' 6" (8' 1" above O.D.) at 9.30 p.m.

These tides rose about 1' above the heights predicted in the tide-tables. The mean spring rise at Devonport is 15' 6" (7' 1" above O.D.). From these data we may conclude that the level of high-water at Hallsands was 9' 6" above O.D., that the depth of water alongside the sea-walls was 10' 6", and that the walls rose from 13' 6" to 14' 6", according to position, above the level of high-water. The statements of eye-witnesses that the seas ran on to the walls before breaking are quite comprehensible. The strength of the waves is evidenced by the fact that a plank from a wrecked building was cast on the roof of the northernmost house of the village (the one yet occupied), and this roof is 40' above high-water of the 27th January, 1917, and 40' distant from high-water mark.

It was fortunate that the sea-walls stood uninjured except for a slight defect in a piece of old work behind, and protected by, the new slip-way. Had there been any failure, loss of life must have followed.

Plate II shows the southern end of the village after the disaster of 1917 ; to fully realise the conditions which it represents it is necessary to know that the sites of eight houses entirely removed by the sea are included in the view, and that the houses visible as ruins are but the remnant of this part of the village. Of two houses not one stone was left in place, save only the thresholds. There were other buildings of which *no* trace remained.

Plate I is a view of the southernmost house in the village, after the storm. This building will be seen in the foreground of Plate II illustrating my first paper on this subject (*Trans. D.A.*, Vol. XXXVI). There the wall facing the sea and the seaward part of the south wall are missing, having been undermined by a storm. These missing parts were rebuilt in 1904, and built with a knowledge of



*R. H. Worth, phot.*

SOUTHERN END OF VILLAGE, AFTER STORM OF JANUARY, 1917.



WILSON'S ROCK, 17 MARCH, 1904.

FIG. II.



WILSON'S ROCK, 1917.

*R. H. Worth, phot.*

HALLSANDS AND START BAY.—To face page 135.



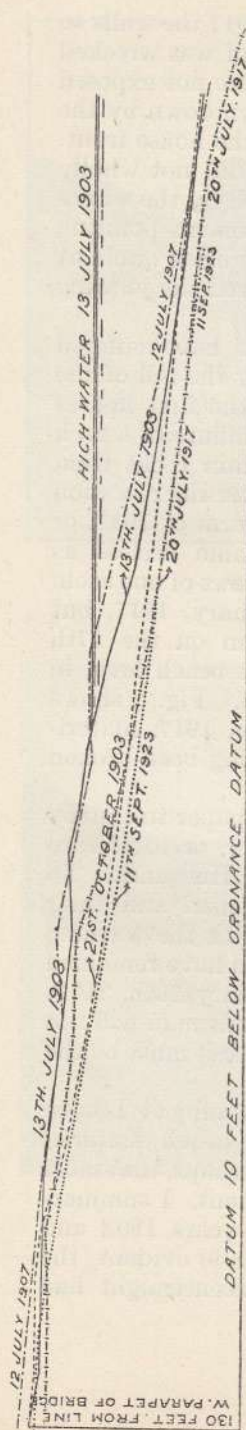
the stress they might have to endure. In 1917 the walls so reconstructed stood unharmed, but the roof was wrecked and the old south and west walls, which were not exposed to the direct beat of the waves, were thrown down by the mass of water flung over the sea-wall and the house front. None the less, the sea-front of the house did not wholly escape. The shingle, raised from the beach by the waves and driven against the wall, cut back the cement pointing of the joints ; and, as will be seen from the brick quoin at the right of the photograph, actually removed the jointing material to a depth of two or more inches.

Not only the houses, but the very rocks have suffered from the added force of waves admitted by the fall of the beach. I have already said that one of the first houses ruined in 1917 owed its destruction to the failure of a rock face near to a sea-wall. There were certain rocks from marks on which I was accustomed to register the recession of the beach. These all perished in the storm of 1917, or were so reduced in size that they became useless as indicators of beach level. Plate III gives views of one such. Fig. 1 shows Wilson's Rock prior to January, 1917, but after the dredging. This view was taken on the 17th March, 1904, the white line indicates the beach level in 1894, the vertical staff is divided into feet. Fig. 2 shows the same rock after the storm of January, 1917, materially reduced in height, the upper part having been broken away.

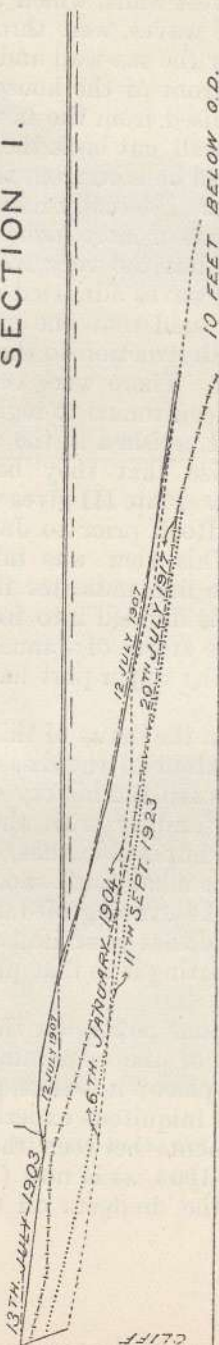
It is impossible within the limits of this paper to convey the full violence and extent of the disaster, or to picture the conditions which closed the history of Hallsands. To any but such as are familiar with the men and their families it would seem impossible that, with the warning of the previous tides, the inhabitants should have remained to endure the test of the evening of January 26th, 1917. I have written elsewhere that your Hallsands man will not leave his house. If a parting is to take place it must be the house that goes.

In each of my previous papers on this subject I have traced the movement of the remaining beach material since the dredging took place ; it is thus, perhaps, that most can be learnt from this iniquitous experiment. I summarised the beach movements between the years 1903 and 1908 as follows : " In 1903, as is now (1909) evident, the excavation made by the dredgers off Greenstraight had

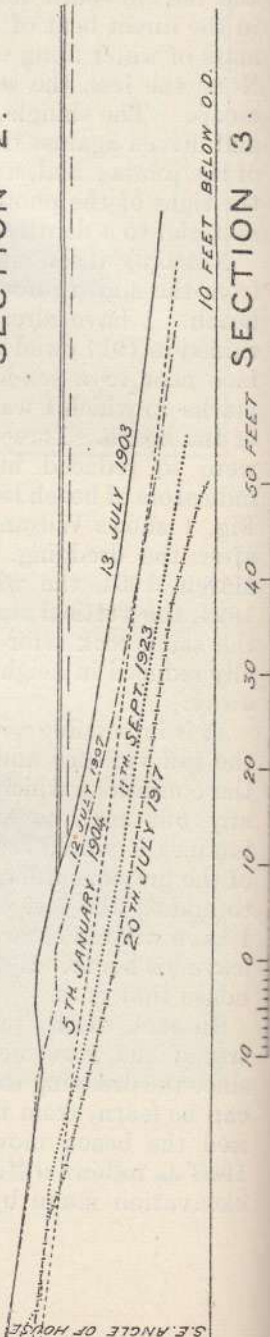




## SECTION 1.



## SECTION 2.



## SECTION 3.





not robbed the beach lying southward to the full extent that was yet to be. If we say that Greenstraight has since recovered an additional 1' 3" in height, and the extreme south of the village has consequently lost about 1' 9" in height of beach, this would probably be a fair statement of fact."

The beach at Greenstraight is so placed, as a barrier across the mouth of a valley, that it has low ground to the landward at a less level than its own crest; it is thus capable of moving landward, and can reconstruct itself on its original stable contour, provided a sufficiency of shingle can be brought to it from the adjacent beaches bounded by cliff and sea-wall. From the first I have pointed to this advantage held by the Greenstraight beach, that it can rebuild itself provided the material is brought to it from the adjacent foreshore. But drift is slow in this bay and only exceptional circumstances can hasten it. Such circumstances were provided by the gale of January, 1917; coincident with very high tides it brought the opportunity, and Greenstraight beach made a great stride landward. The road was still further cut away, in part overwhelmed by shingle, the bridge carrying the road was destroyed, marsh and grass lands were covered by the advancing beach, the ditches draining the marsh were filled up and obliterated; as measured at high-water mark a movement of at least 20' landward took place within a few tides, and above high-water mark the movement was at least 40'. This involved the shifting of the contours of the beach so that the same levels are now attained further west than formerly, and hence a section will show by comparison an apparent fall of the beach at Greenstraight, whereas the total mass has been increased.

The positions of the recorded sections are shown on the plan attached to my paper published in Vol. XXXVI of our *Transactions*. The sudden change which occurred in January, 1917, involved an apparent loss at Section No. 1 (Greenstraight) of 3.19' in height, apparent only, because the beach had moved landward. There were real losses of 2.92' at Section 2, 5.25' at Section 3, 5.09' at Section 4, 3.28' at Section 5 and 2.91' at Section 6. All these last five sections showed also a material narrowing of the beach. The levels were taken on the 20th July, 1917, after a prolonged period of moderate weather, so that the contours should be fairly comparable with those of the

year 1908. Sections 1 and 2 were again surveyed on 13th August, 1919, and showed no real change.

Summarised ; the differential movement of the shingle is clear, Greenstraight loses 3·19' in level coincident with an increase in width, and the loss of level is only apparent, since the same contours occur further landward. The beach fronting the village loses 4·13' in level, coincident with a considerable decrease in width. The loss in level is actual and the reduction in mass is real.

If necessary for its stability the Greenstraight beach will ultimately absorb yet more of the shingle now lying between Tinsey Head on the north and Long Rock on the south ; it will also move landward and take up a narrower front. Thus it may ultimately assume much the same condition as the isolated beach at Blackpool Sands.

But observations made since this paper was read show that in normal times, free from unusual gales, there may be lateral movements of beach material which rob Greenstraight of some of the shingle lying between tide marks and raise the beach near the south end of the old village. Such fluctuations, either as stated, or in the contrary direction, must of necessity take place ; following at all times the influence of the temporarily prevalent winds and seas.

On the 11th September, 1923, it was found that Section 1, at Greenstraight, had lost 0·72' in level since 1917, and Section 5, near the south end of the village, had gained 2·42' The total volume of the beach had not been increased, but the loss of Greenstraight, less in height but greater in area, balanced the gain of the south end of the beach, greater in height but less in area. The movement of about 8000 cubic yards of shingle was involved.

	Variation 1908-1917	Variation 1917-1923		Variation 1908-1923	Variation 1903-1923
	Loss.	Gain.	Loss.	Loss.	Loss.
Sec. 1	3' 2·2"		0' 8·6"	3' 10·8"	2' 7·6"
Sect. 2	2' 11"		1' 3·2"	4' 2·2"	3' 8·9"
Sec. 3	5' 3"	1' 6·5"		3' 8·5"	4' 8·5"
Sec. 4	5' 1"		0' 0·3"	5' 1·3"	4' 9·8"
	1907-1917			1907-1923	
Sec. 5	3' 3·3"	2' 5"		1' 10·3"	2' 10·3"
Sec. 6	2' 10·9"	2' 0"		0' 10·9"	2' 9·5"



The preceding table (p. 139) gives details of the variations from 1903 to 1917. See also the sections published herewith (pp. 136, 137).

The figure here inserted shows the total variation in beach level between the years 1894 and 1923, the section being taken at Wilson's Rock.

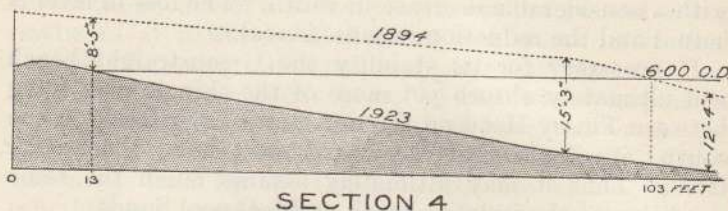


FIG. 3.—Variation of Beach, 1894-1923.

The gale of January, 1917, did damage elsewhere in Start Bay. At Beesands a portion of the garden of the southernmost house was washed away, and the road leading to this house was also removed, endangering the next cottages to the north. To some extent this damage has been repaired, the cost being borne by the *Western Morning News* Relief Fund.

At Torcross the road was badly breached and the sea came very near destroying the foundations of several houses. Here also the damage has been made good. But both at Beesands and Torcross there has been a permanent lessening of the security formerly enjoyed, and the future may bring serious trouble to these villages. It will be remembered that on the 19th September, 1901, and while the dredging was still in progress, Capt. Harold Frederick, R.N., reported to the Board of Trade that: At Torcross there had been quite recently a decided loss of beach material, and a considerable amount of erosion had lately taken place in front of Beesands village. Even to-day, after an interval of twenty-two years, the injury so evidenced is still developing.

At Blackpool, where the beach had been robbed for many years prior to 1909, but by others than Sir John Jackson, the sea-wall was wrecked in 1917 and the lower cliffs, which consist of "head," were much eroded. The wall has been re-erected; and, as the removal of beach material was prohibited by an order made in 1909, the new

wall may possibly enjoy a reasonable life, but I fear this cannot be certain.

It may be interesting to record the behaviour of the sea-walls at Hallsands. None of the new work suffered damage in the gale of January, 1917, but the last remaining portion of old structure, behind the new slip, was slightly damaged. Subsequent storms have wrecked this old wall and admitted the sea behind the slip and the new walls. The surface of the slip has been wrecked, and the long wall at the south of the village now stands without the support of any filling at its back. The whole of this damage could have been avoided at the expense of ordinary repair, but it

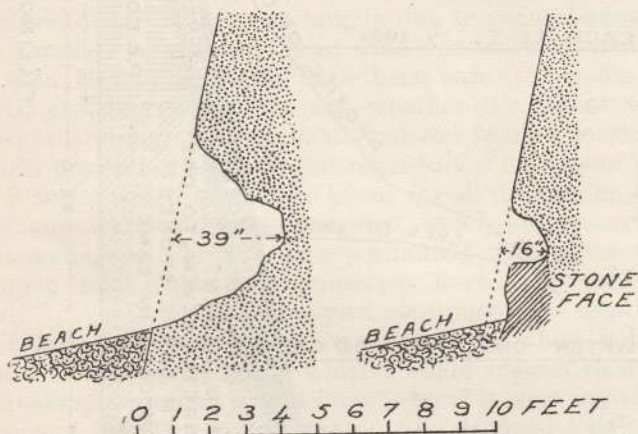


FIG. 4.—Erosion of Concrete Walls by Beach.

would have been waste of money to maintain the defences of the lost village. Slowly, therefore, the walls must follow the houses to ruin. It is well to note the extent to which a shingle beach, unrestricted by repair of the structure, can cut into a sound concrete wall; the accompanying figure gives instances of the present erosion of the walls by the beach.

The walls erected, light as they were, have proved equal to the work demanded of them. A detailed cross section is here given. The particular wall there illustrated was subsequently underpinned to rock, and at the beach level many of the walls where worn have been faced with stone.

Before the beach was removed to Keyham the village of



Hallsands consisted of thirty-seven houses. Dredging was commenced in April, 1897, and continued until January, 1902. Clear evidence of damage was afforded by the undermining of the original sea-walls early in 1901. In

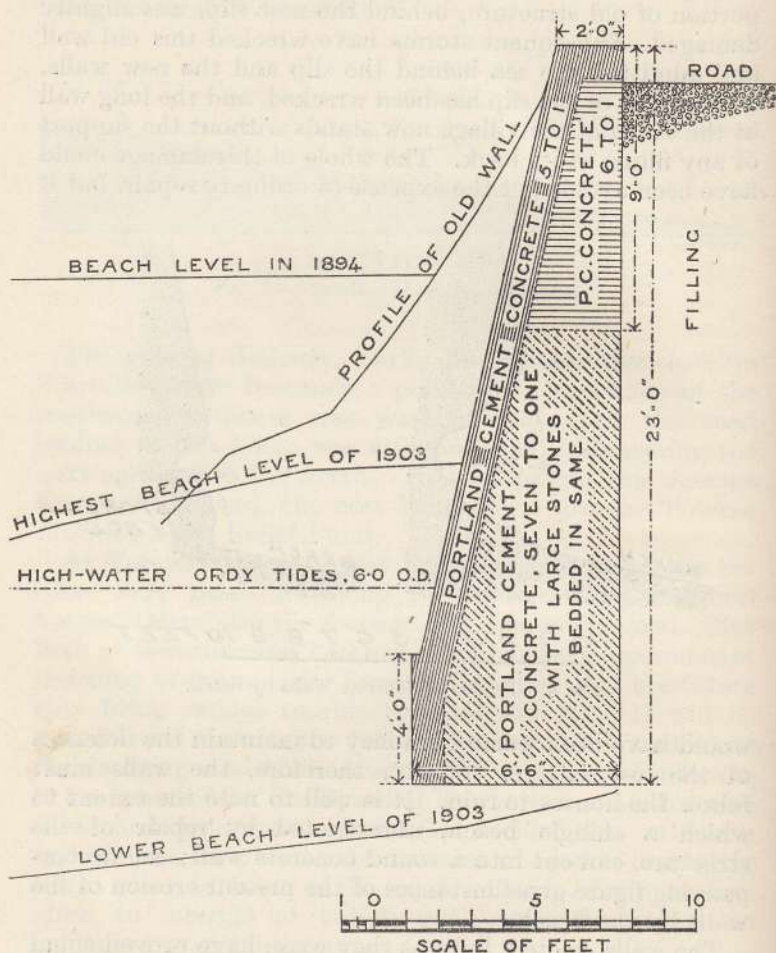


FIG. 5.—Detail of Structure of Sea-wall.

February, 1903, two houses were wrecked, more fell in 1903 and 1904; and in 1917 there remained, on the 25th January, twenty-five habitable houses—on the 28th January one only.

Efforts were at once made to secure some compensation for the sufferers, and especially to re-establish the village on a secure site. Of the total number of houses lost, twenty-two were occupied and the greater number owned by fishermen. The Devon Sea Fisheries Committee, Col. F. B. Mildmay, M.P. (Lord Mildmay of Flete), Sir John Spear, M.P., and others urged the claims of the fishermen upon the Board of Trade, and the *Western Morning News*, under the management of the late Mr. A. E. Spender, gave every assistance in its power.

The Board of Trade was difficult. It claimed credit for having stopped the dredging, after, be it remarked, the mischief had been done. It expressed the opinion that the condition of the village was largely due to natural causes, which was so far true that, had wind and waves ceased to be, then Hallsands would have been safe. This bit of special pleading led me to ask whether the Board was seriously arguing, that when it removed from a coast its natural protection and threw it open to the inroads of the sea, it was entitled to put the blame for all damage on the wind and waves and on the gales, which are recurrent phenomena, and which for over a hundred years before the dredging had expended themselves harmlessly on the beach? Was it entitled to expect continuous fine weather and calm seas on those portions of the shore which it had robbed? The only parallel which I could suggest to such an amazing argument would have been if it were urged in defence of the memory of the man who dropped a lighted match in a munition factory, that the resultant disaster was largely contributed to by the unfortunate local concentration of a mass of high explosive.

The Board pleaded the receipt which it held for the former compensation money, a receipt in full settlement of all claims. (It is now known that when this payment was made the Treasury returned to Sir John Jackson, Ltd., the amount of royalty received from that firm in respect of the shingle removed.) It was alleged that any assurance given to the fishermen that the beach would recover, if the sea-walls were built, came from myself. In view of the words of my first report: "*The damage can never be made good as far as the beach is concerned*," this allegation was manifestly an error. Finally, the Board of Trade said that, in the circumstances, there seemed no reason why it should be held responsible for the failure of the sea-walls.



Since no wall had failed, upon that point I was constrained to agree.

Such being the attitude of the responsible Department, it looked as though nothing short of a campaign of intensive publicity held promise of a remedy. But at this time Sir Albert Stanley, President of the Board of Trade, fortunately consented to receive a deputation from the Devon Sea Fisheries Committee, and promised that deputation an enquiry into the circumstances by an independent engineer. The Board appointed Sir Maurice Fitzmaurice, C.M.S., M.Inst.C.E., to hold the enquiry, which took place at Hallsands on the 25th September, 1917, eight months after the catastrophe. In view of the considered decision of the Royal Commission on Coast Erosion, that the case of Hallsands showed that the removal of beach material was especially dangerous to adjacent property where the beach was entirely isolated from any source of supply, this further enquiry would hardly appear to have been necessary.

Sir Maurice Fitzmaurice's report has never been disclosed; that it confirmed the responsibility alleged to rest with the Board of Trade is certain, that all its recommendations were adopted is perhaps doubtful. Be this as it may, it was not until 12th June, 1918, that it was "allowed to be understood" that some such sum as £6000 would be available by way of compensation; one year and six months had then elapsed since the catastrophe. The burden of preparing a scheme for the utilisation of this sum was placed upon the Devon Sea Fisheries Committee. Obviously the amount available was inadequate, but the Board of Trade insisted on receiving a scheme, and it was suggested that any attempt to stand out for a larger amount of compensation might have its inconveniences.

Amid all the uncertainties some arrangement, that optimism itself might find doubtful, had to be devised. This was done. Next followed the assessment of compensation in respect of the lost houses and of furniture and effects damaged or destroyed.

Nothing beyond the market value of his property, as it stood before the gale, was allowed to any house-owner, and the amounts required under the above headings were, in respect of property—£2188 5s., in respect of furniture and effects—£616 4s. 6d., making a total of £2804 9s. 6d., and leaving in the hands of the Committee a balance of

approximately £3200 from the grant with which to rebuild Hallsands. The first scheme involved the sale of the houses when built at £200 each, and eighteen houses were contemplated. These sums of £200 each and the balance from the grant, together, it was hoped would suffice to build the houses. The scheme so outlined was put forward on 31st March, 1919. The £6000 were not actually received until 23rd May, 1919, two years and two months after the disaster. The whole of the delay, if we except two months as being a reasonable time to allow to the Department to arrive at a decision, was attributable to the Board of Trade, and such delay proved in itself disastrous.

Steps were forthwith taken to secure a site for the new houses, and a field looking out upon Greenstraight was purchased. It lies secure from any possible damage by the sea and meets the approval of the fishermen. Not before early in 1920 could the purchase be completed. Plans were prepared and tenders invited for the houses, but by this the Government Housing Schemes were in operation, and no contractors could be found to go as far afield as Hallsands. Prices had also risen, and when at last one tender was secured it was found that the scheme would be financially impossible.

In August, 1920, the Board of Trade wrote that the Ministry of Health suggested that the houses should be erected by the Kingsbridge Rural District Council as part of an assisted housing scheme. On the 19th November, 1920, the Ministry of Health held an enquiry at Kingsbridge, and the Rural District Council consented to erect twelve houses at Hallsands. In January, 1921, preparations were made to transfer the site at Hallsands to the District Council. Delay ensued, from what cause I do not know, but perhaps the next incident is explanatory.

On the 28th June, 1921, the Ministry of Health wrote refusing consent to the erection of the houses as part of an assisted housing scheme, on the ground that the policy of the Ministry was being revised, and "industrial areas in which congestion was most acute must have priority."

Not even a natural indignation at this decision can mask a sense of its humour. Here were men practising one of the most essential and exacting industries of the country, scattered over the countryside, finding shelter with their wives and families where they might; some living in houses condemned as unfit for habitation; five men sleep-



ing in a loft over a coach-house ; others frequenting the ruins of their former homes when the weather permitted ; and the Ministry of Health, with a fine sense of logic, discriminated between their " industrial dispersal " and the " industrial congestion " to which it accorded priority.

The very phrasing of the refusal suggested its remedy. Steps were taken to approach the Ministry of Health with a scheme for a public utility society to be known as the " Hallsands Housing Society," having as capital the balance of the compensation money and seeking to borrow from the Public Works Loans Commissioners the further sum necessary to complete the scheme, with Government assistance as to subsidy. There was still many difficulties to overcome, but with the assistance of the Ministry of Agriculture and Fisheries, whose help has always been an invaluable asset, and at last with the real assent of the Ministry of Health, this scheme has proved practicable. Hallsands has been recognised as an industrial area, and its " congestion " admitted, if a desert can ever be described as congested.

Even so, no more than ten houses can be built, and to render that possible the *Western Morning News* Fund has contributed £200 towards the cost. On the 30th August, 1922, the draft contract for the erection of the houses under the Public Utility scheme was approved by the Ministry of Health ; in September, 1922, the contract was signed. On the 7th April, 1923, a memorial stone was laid by Mr. E. C. Perry, chairman of the Devon Sea Fisheries Committee and of the Hallsands Housing Society ; this stone forms the quoin of one of the houses, four of which now approach completion. The total expenditure on ten houses, with roads and water-supply, will be £6577.

When the buildings have been completed there will be, in place of the thirty-seven houses formerly existing, four cottages built with the proceeds of the first public appeal made by the *Western Morning News*, ten more under the present housing scheme, and one which is being built by Miss Ella Trout, O.B.E., a total of fifteen (possibly also four houses may be available at the coast-guard station). If we include the hotel which replaces the old London Inn, then more fairly we would say sixteen in place of thirty-seven. A result unsatisfactory in itself as being inadequate, but which it has taken the united efforts of many to accomplish.

Hallsands has never lacked friends. Col. F. B. Mildmay, M.P., (Lord Mildmay of Flete), has not only at all times pressed upon reluctant Government Departments the claim for restitution, but himself contributed to the first grant of £3250 the sum of £250, having previously made advances to enable the work on the sea-walls to proceed, pending the decision of the Government. The late Sir John Spear, M.P., associated himself with Col. Mildmay's efforts during the latter's absence on the Western Front. Three others who gave their services ungrudgingly are lost to us by death: Rev. C. R. Finzel, Mr. A. F. Holdsworth and Mr. Edward Windeatt, while Mr. Stephen Reynolds of the Ministry of Agriculture and Fisheries died before the last controversy was decided. Mr. A. E. Spender,<sup>1</sup> former managing director of the *Western Morning News*, Mr. Edwin C. Perry, chairman of the Devon Sea Fisheries Committee, Mr. W. J. Sanders and other members of that Committee, with Mr. H. Ford, the clerk to that body, have all been associated with the work for many years, some from the beginning; and, since the death of Mr. Stephen Reynolds, Mr. J. Thomson of the Ministry of Agriculture and Fisheries has given essential and valued assistance.

By the manner in which they have endured undeserved ill-fortune the inhabitants of Hallsands have earned the respect of all who have been associated with them. In reaching the close of my sketch of the history of the last twenty years at Hallsands, may it be the end also of the story of their troubles and anxieties.

<sup>1</sup> To the sincere regret of all that knew him, Mr. Spender has died since this paper was written.