

HERRING-NETS AND BEATSTERS

AN ESSAY IN INDUSTRIAL ARCHÆOLOGY

By CHARLES GREEN

INTRODUCTION

INDUSTRIAL ARCHÆOLOGY need not be limited to the study of the early equipment and processes of the Industrial Revolution. In Norfolk, though the county was comparatively untouched by its changes, there are many "monuments" of a recent industrial past which is now as extinct as the salt manufacture mentioned in Domesday Book. The basis of this article is a descriptive survey made in 1964 of the net warehouses of Caister-on-Sea, the shore bases of boats of the deep-sea herring fleet. None of these warehouses antedates 1845 and the last went out of use for its original purpose in 1961. But as the Yarmouth herring fleet has finally disappeared, the demolition or re-modelling of these buildings has virtually destroyed the physical background of all those activities which provided the boats with their essential equipment. And of those I have been able to discover in Caister, two only retain enough of their original character for this to be described and pictured. Of these one only is of what I have called Type I, the fully-equipped net warehouse with tanning-copper and beatsters' chamber (Plate I). Type II, of which there were two, was a smaller building used as a supplementary store only, with a stable and cartshed on the ground floor, the primary purpose of the building. Though this is not a history of the herring fishery, a very short historical summary is necessary to explain the contribution which these buildings and their working staff made to the life of East Anglia.

During the Middle Ages, though the town of Yarmouth built its prosperity largely on the herring-fishery, the deep-sea herring fleets seem not to have been of Yarmouth boats but mainly, if not altogether, of Dutch ownership, the skippers of which brought their catches to Yarmouth to be sold. It was this lack of English enterprise which, in 1615, led Edward Stephens of Lowestoft to publish his *Britaines Busse, or a Computation as well of the Charge of a Busse or Herring Fishing Ship. As also of the gaine and profite thereby*. In it he tells us that "one Roger Godsalve Esquire, of Bucknam Ferry in *Norfolke* . . . had on the Stockes at Yarmoth five Busses; . . . Soone after that I heard that . . . Sir *William Harvie* Knight had on the Stockes at Lime-house . . . another very faire large Busse . . . which Busse I did after see myselfe. . . . But beside these two Gentlemen, I have not yet heard of any English that have yet applyed themselves that way". Inshore fishing there certainly was but, as this extract shows, English fishermen were slow to begin building the deep-sea fleets which reached their peak of size and prosperity in the nineteenth century.

Most of Stephens' little book is a detailed specification of the boats, their rigging and navigational equipment, their fishing and domestic equipment and of the necessary crews, together with the cost of each item. Of the nets his description is so detailed that it is possible to reconstruct them (Fig. 1 [a]). In 1866, J. G. Nall published an account of the Yarmouth herring fishery and described the nets in some detail, so that again they can be reconstructed (Fig. 1 [b]) and it can be seen that, though these are broadly similar to those of two centuries earlier, there are important differences of detail. Further changes in net fashions have since taken place for, in recent times, the Yarmouth fishermen began to use nets of the Scottish type, though with a slightly different mesh-size suited to the size of the fish taken off the East Anglian coast (Fig. 1 [c]).

The overall size of the nets was, of course, directly related to the size of the vessel and in this the nineteenth century saw great changes. In the first half of the century the typical deep-sea drifter was a three-masted lugger. But as both Yarmouth and Lowestoft had deep-water havens, larger vessels were built and, about the middle of the century, the mainmast was omitted, thus altering the sail-plan. The boat then carried, in addition to the jib, a great dipping lugsail on the foremast and a smaller standing lug on the mizen. This was the type of vessel described and illustrated by Houldsworth (1874). As the boats still tended to increase in size, the dipping foresail required very careful handling by a strong crew. The local owners, however, increasingly signed on inexperienced men, chiefly to handle the nets, and the size of the lug became something of a handicap. It was accordingly divided; before the mast there was a small staysail as well as the jib and the after part became a loose-footed boomless gaff-mainsail. The mizen lug also was given a gaff and boom, so that the vessel was now ketch-rigged with the mainsheet working on a horse and with a good space amidships in which the nets could be handled.

This type of vessel lasted into the present century. However, in or about the year 1890, a few trials were made with chartered steam-vessels in the Yarmouth fishing, before true steam-drifters were introduced there. These gave such promise that, between 1900 and 1910 the change from sail to steam became common, and by the First World War, few of the older deep-sea sailing drifters remained in commission.

THE WINTERTON—CAISTER MIGRATION

This great growth in the industry and the altered conditions led to other changes. The fishermen of Winterton had provided many of the skilled seamen who manned the Yarmouth boats in the earlier part of the century. But the long tramp to and from Yarmouth had become increasingly inconvenient for various reasons and, by about 1840, a migration of Winterton men to Caister had begun. The Tithe Award map of Caister was prepared in 1843 and shows clearly that, at that time, there were no buildings, other than Old Mill Farm and the Manor House, east of a few scattered houses in Victoria Street. Today, the area between Victoria Street and the beach is commonly regarded as the "old" part of Caister, the "beachmen's town". It was indeed by and for these

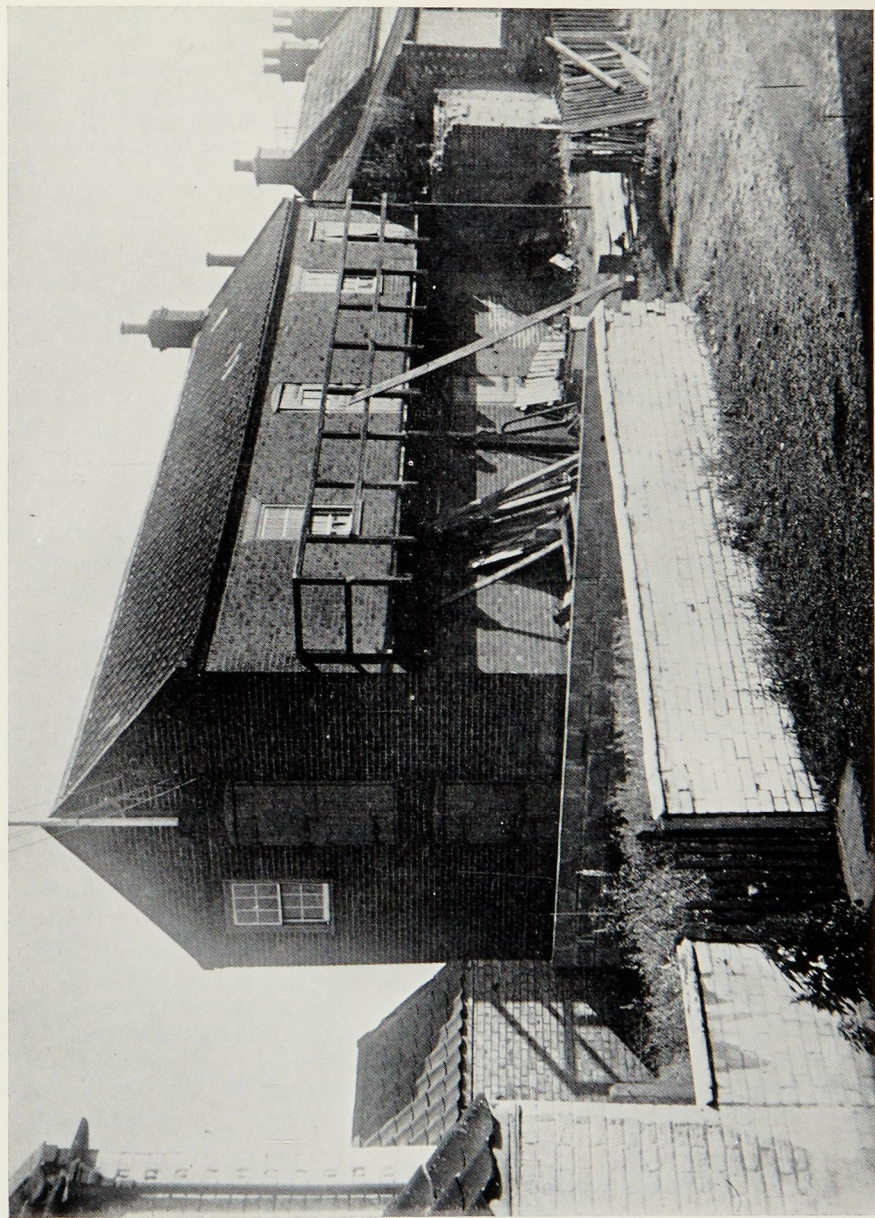


Plate I. Net warehouse. Honeymoon Loke, looking south-east

Winterton families that these houses were built, either facing, or close to, the denes and the sea. And with two exceptions, all the known net warehouses were in this area and built between, say, 1845 and 1875 (Fig. 4). Of the two outside this area, one stood in a yard off the Yarmouth Road and the other was at California, at that time a part of Caister parish. But there is no evidence that either of these antedated 1845.

THE NETS (Fig. 1)

The nets described by Nall in 1866 were of the type which these net warehouses were originally designed to handle. Each complete net was a large composite structure, built up of many net-units carefully mounted for their particular purpose.

The unit of netting was known as a "lint" and, at that time, was 8 ft. deep by some 81 ft. long when stretched flat, but as it was hung slack, in folds, its working length was 54 ft. These lints were made in the West Country and came from Bridport in Dorset. The name "lint" suggests that, in early days, nets were made of a linen thread derived from flax, and Bridport was a centre for flax-growing. But by the nineteenth century, cotton was the material used. These new lints were of white cotton and first they had to be "oiled". They were immersed in a tub holding a mixture of "pine oil" and linseed oil, the pine oil apparently being a kind of varnish. They were then passed through the rollers of a small wringing machine clamped to the tub, to remove the surplus liquid. By this process the twine of the net was stiffened. Then they were edged with a fine cord known as "twine-masking" and were ready to be tanned, a process which dulled the colour to a dark neutral brown and added length of life to the cotton. Outside the net warehouse was a tanning-copper similar to, but larger than, the domestic washing-copper of the nineteenth century, the interior of the container being as high as a man. Here the lints were immersed in a solution made from catechu, "cutch" as the fishermen called it, a substance derived from the wood of the East Indian Betel-nut Palm *Areca Catechu*, though formerly, oak and ash bark had been used for this purpose. Then they were spread on the denes to dry or, if only a few had been treated, were hung from the balcony rails of the warehouse.

When the lints were dry, they were ready for assembly, a process which took place in the net warehouse, now to be described. As the only one available for examination was that in Honeymoon Loke, No. 2 in the appended schedule, the description is based on that. But the older members of the fishing families, who knew these warehouses in the days of their active use, tell me that this one is a typical member of the series and what is described there is substantially true of them all.

THE NET WAREHOUSE (Pl. I, Figs. 2, 3)

Internally, this warehouse is 43 ft. 9 in. long by 14 ft. 8 in. wide. From the brick floor to the base of the roof-ridge is 21 ft. 8 in. This interior is divided

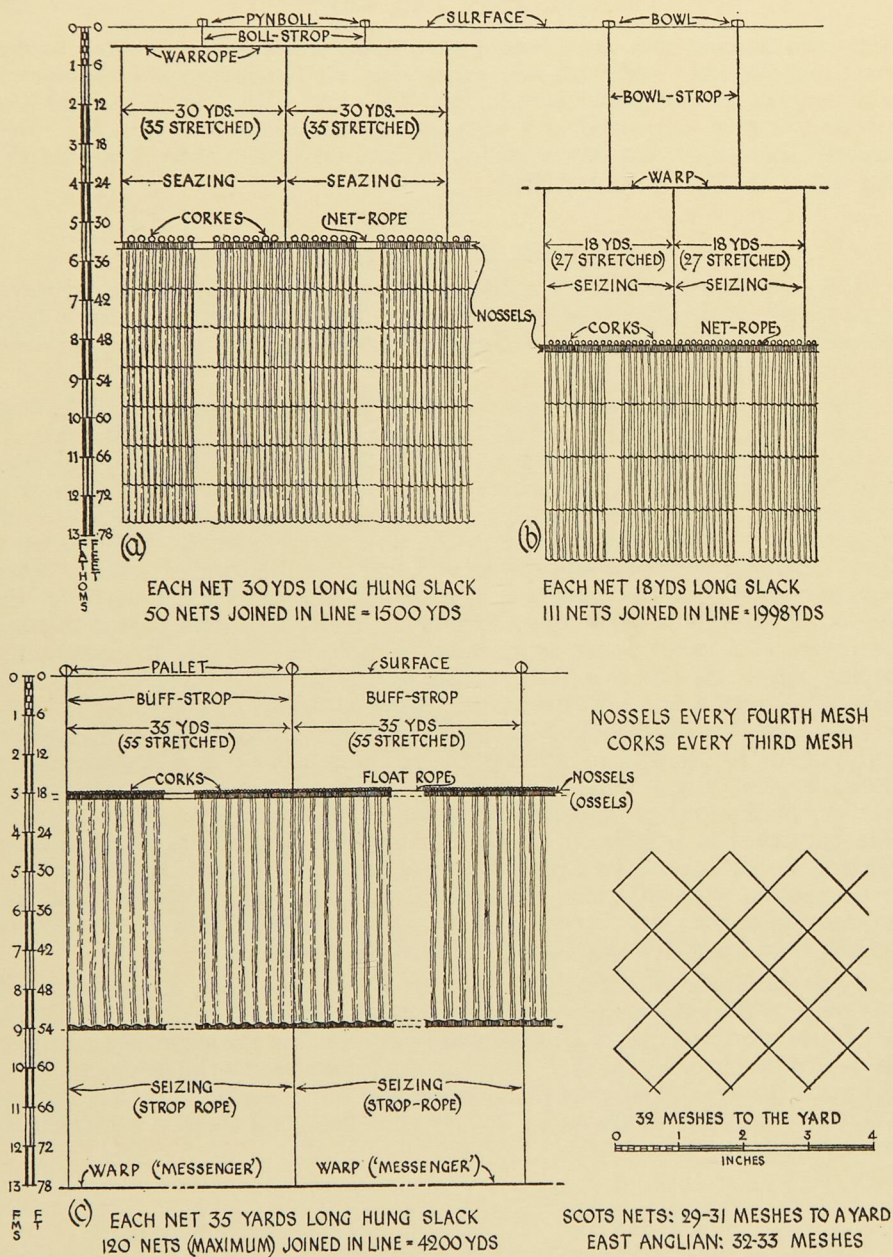


Fig. 1. Herring nets: (a) Seventeenth-century type; (b) Nineteenth-century type; (c) Twentieth-century Scots' type

into two storeys, the surface of the upper floor, of 1-inch boards, being some 8 ft. 8 in. above the brick floor. It rests on joists 9 in. by 3 in., set *circa* 1 ft. 4 in. apart, centre to centre.

The building is of brick with 9-inch walls, the bricks set in a "bastard Flemish" bond, 1 stretcher to 3 headers, though an occasional course is in true Flemish. Over the ground-floor windows and doors are brick relieving-arches of headers resting on the wooden lintels. In the lower course of these arches, the headers are vertical and, in the upper, horizontal. The roof is pantile-covered with ridge-capping, 10 courses a side. The roof trusses are of simplified queen-post type. There are no main rafters, as the almost vertical posts rest on tie-beams and support a single purlin on either side. The common rafters rest on the purlins and are slotted into notches on the upper faces of the tie-beams. These tie-beams are set 3 ft. 11 in. apart, centre to centre, and are rebated at the ends to rest on the wall-plates, their upper angles being chamfered to the pitch of the roof. Resting centrally on, and bolted to, the first two tie-beams at the north end, a beam projects through the gable wall to provide a hoist for lifting and lowering nets. Another, of slightly different construction, is centrally over the double door on the east side.

The ground-floor sash windows are fitted each with a single wooden shutter and the external doors on both floors, other than the large double doors, are each a pair of half-doors opening outwards.

Along the west side at first-floor level, is a wooden balcony. The flooring, four 1-inch planks set longitudinally, and the handrail, rest on joists projecting from the wall. When originally built, these joists were the interior floor-joists Nos. 1, 3, 6, 9, etc., projecting 3 ft. 8 in. from the wall-face. But the balcony bearers have been renewed; the old projecting ends have been cut away and new shorter lengths inserted alongside and bolted through inside the building. At the south end the balcony ends, without a handrail, at the edge of the tanning-copper platform, which stands almost to the same height. Thus it is possible to step from the balcony or out from the door of the beatsters' chamber on to this platform and the nets could be dropped directly into the copper without the aid of lifting tackle.

The south end of the upper floor is enclosed by a boarded partition attached to the tie-beam, and here in the south wall is a fireplace. This was the beatsters' chamber and the fireplace was for providing warmth in cold weather. The rest of the upper floor was originally divided by low partitions into a series of "stalls" along either wall, leaving a central passage to the beatsters' door. These partitions have now been removed; they served to hold in order the coiled completed nets until they were required. The work of assembling the nets was done in this central passage, the net-rope being attached to stout hooks set high at each end.

The ground floor was used as a store for the heavier and bulkier gear such as ropes, floats, and the like. Here also was the paint-store where the necessary painting was done. The double doors on the east side permitted a cart to be

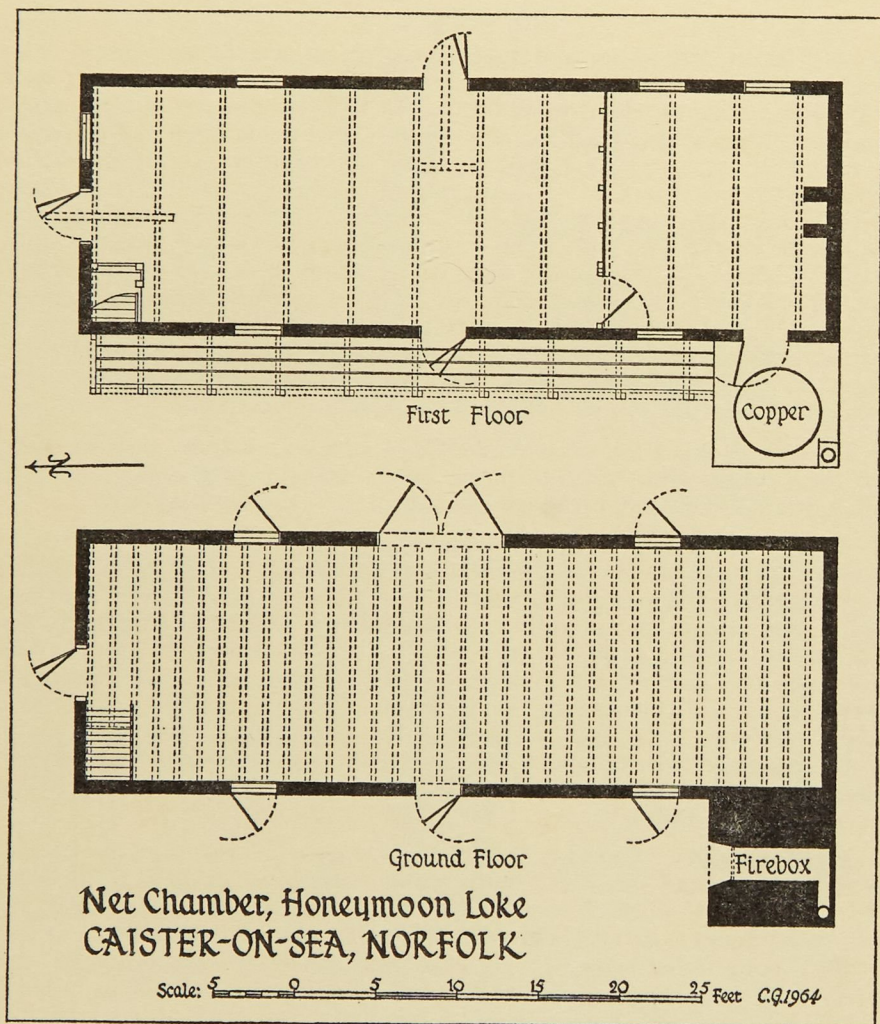


Fig. 2. Plan, Honeymoon Loke warehouse

backed in, so that it could be loaded. The coils of nets, as has been said, could be lowered into the cart either here or at the north end.

A building used as stable and cartshed was a necessary adjunct of a net warehouse, as a horse and cart, normally two-wheeled with raised sides, were required to convey this equipment to the boat lying alongside the Fishwharf in Yarmouth Haven, three miles or more away. In the warehouse here illustrated (Pl. I), this auxiliary building stood detached near the north end and may now be seen as the outbuilding in the garden of the later house standing close by.

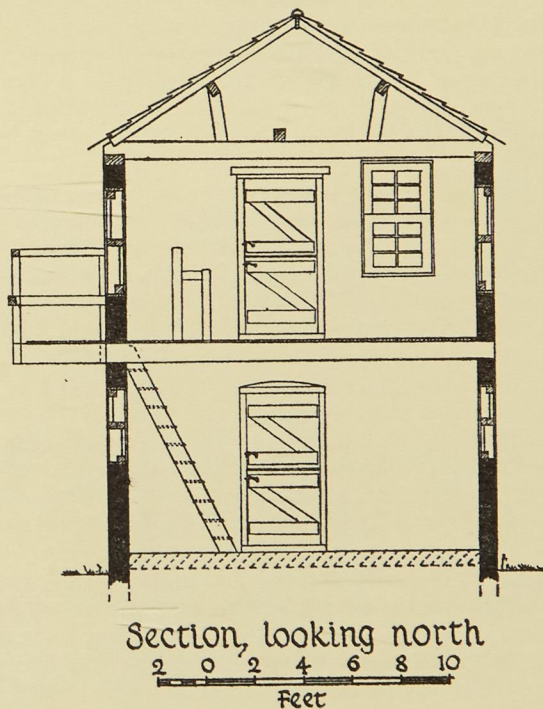


Fig. 3. Section of Honeymoon Loke warehouse

The primary work of the beatsters, apart from attaching twine-masking to new lints, was the repairing of used nets. These beatsters were skilled women who, with a "shale" (i.e., netting-needle) of the correct gauge, worked over a length of net slung between hooks on each side of their chamber. Here, with light from opposing windows, the nets were examined and all broken or frayed meshes were renewed. Then, when the used net was completely renovated, into the tanning-copper it went for its seasonal tanning. When this was completed,

it was customarily slung in festoons from the handrail of the balcony to drip and dry, before being attached once again to the net-rope. Not more than a small proportion of a fleet of nets could be so hung. Resident boat-owners had certain customary common-rights on the adjacent denes and if large numbers of nets had to be exposed at one time, they were normally spread on the ground to dry.

In Nall's day, a full "fleet" of nets, when extended at sea, was almost 2,000 yards long, i.e., almost a mile and a quarter. When the Scots-type net was adopted this, though not so deep, ran up to a maximum length of 4,200 yards, i.e., rather more than two and a quarter miles. The sheer bulk and weight of so great a quantity of nets was considerable. But it must also be remembered that every prudent boat-owner held also a reserve fleet of nets. In a gale of wind or in some mishap at sea, it was always possible for a boat to lose its nets or have them badly damaged. If so, it would at once return to its home port and be re-equipped with the spare fleet so that fishing could be resumed with a minimum of delay.

When "shot" (the fishermen's invariable term) at sea, the nets hung from the "warp", a rope of some 8 in. circumference, which was suspended just below the surface from a row of small tubs known as "bowls", replaced in the Scots nets by canvas buoys called "pallets". All these had to be regularly painted and the quarter-, half-, and three-quarter bowls were differently coloured to act as a guide. The outer end was marked by a "dan", a small buoy fitted with a flagstaff.

From the warp, the net-rope hung by the "seizings". It was also buoyed by discs of thick cork, attached at every third mesh. To this rope the net had been secured in the warehouse by "nossels" (in East Anglia, always pronounced "norsels"), a nossel to every fourth mesh. Below that, the earlier types of net hung free, but the modern Scots net has a further attachment below, the "messenger-warp", also slung from "seizings". This keeps the net vertical in the water.

With all this gear to be cared for, painted and repaired, the equipment of a single deep-sea fishing-boat was sufficient to keep the owner busy throughout the year, assisted by a couple of beatsters. When once he became an owner, his sea-faring as a fisherman came to an end and he was driven to employ a skipper in his place. Wealthy owners or companies, who owned a fleet of boats, were commonly established in Yarmouth, where they were compelled to employ a full-time shore staff for this work in the warehouses, of which they had more than one. But the Caister owners were smaller men, usually the owners of one boat apiece. And as in the present century there has been a catastrophic fall in the quantity of herrings taken, these smaller owners have found it so unprofitable an undertaking that, one by one, they have retired from the business and the warehouse buildings have mostly been re-modelled as two semi-detached dwelling-houses. The last to be relinquished, however, survived until the modern demand for holiday accommodation had reached its present strength. Together with an added penthouse, it has been re-modelled as a row of "holiday-flats".

Since then, the last Yarmouth company has sold the remnants of its fleet, so that the Yarmouth district has no more net warehouses in commission and the beatsters now find other employment in the modern light-industry factories which have sprung up.

ACKNOWLEDGEMENTS

I am grateful to Mr. Alfred Brown of Caister who gave me the freedom of his warehouse so that it could be examined and measured in detail. Many Caister friends have supplied information and of these I must name Mrs. D. L. Harbord and Messrs. R. H. Haylett and John Woodhouse, to whom I owe so much of my knowledge of the history of Caister beach and its fishermen. I am also grateful to the Editor of the *Eastern Daily Press* who permits me to incorporate material previously contributed by me to his columns.

LITERATURE CITED

- Houldsworth, E. W. H. (1874). *Deep-sea Fishing and Fishing-Boats*, London.
 Nall, J. G. (1866). *Chapters on the East Anglian Coast*, London, 2 vols.
 S[tephens], E[dward] (1615). *Britaines Busse . . .*, London.
 Tithe Award Commissioners (1843). *Apportionment of the Rent Charge in lieu of Tithes in the Parish of Caister . . .*, MS.

APPENDIX

THE CAISTER NET WAREHOUSES

(Fig. 4)

TYPE I. FULL-SIZED WAREHOUSE WITH BEATSTERS' CHAMBER AND TANNING-COPPER

<i>Situation</i>	<i>Last used for nets</i>	<i>Later use</i>
1. Jay's Yard, Yarmouth Road (now No. 39)	c. 1883, when owner bankrupt	first by basket-maker, now 2 dwelling-houses
2. Honeymoon Loke, Tan Lane	1949, when boat <i>Ekede</i> sold	storage of deck-chairs, beach-huts, etc.
3. Tan Lane, Nos. 59 and 61	1924, when owner took No. 2	2 dwelling-houses
4. Tan Lane (E. of No. 3)	c. 1900; blown up, 1942	house of golf-club professional on site
5. Victoria Street (E. side)	1956, when owner retired	coalyard with 2 flats over
6. Victoria Street (W. side)	1933	first for inshore-fishing gear, now as builder's store
7. Clay Road (W. side)	1945, when boat sold	photographic laboratory with flat over
8. Beach Road (S. side)	1961, when boat sold	holiday flats
9. Coastguard Road	1923 (?) when boat sold	2 dwelling-houses

10. California (S. side)

c. 1880

dwelling-house

TYPE II. SMALL; STABLE AND CARTSHED WITH STORAGE WAREHOUSE OVER

11. Corner of Clay Road and
Tan Lane (W. side)1956, supplementary
to No. 5

household utility store

12. Beach Road, No. 150

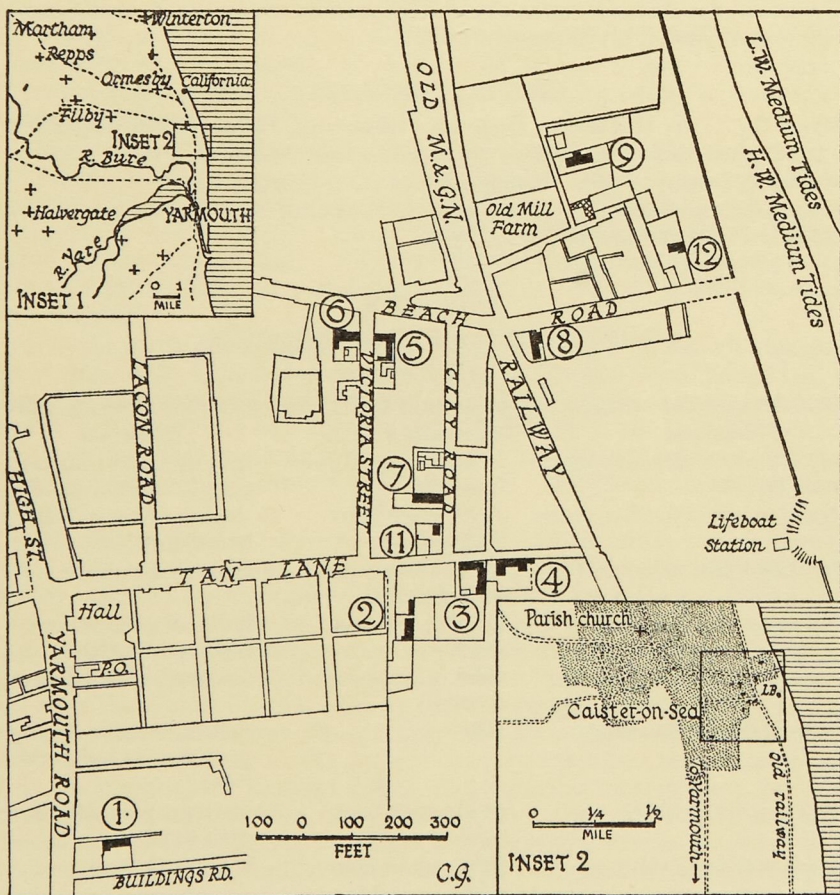
1885, when owner
drowned in yawl
Zephyr II and boat
soldshopkeeper's garage and
store

Fig. 4. Caister-on-Sea: plan showing the distribution of net warehouses