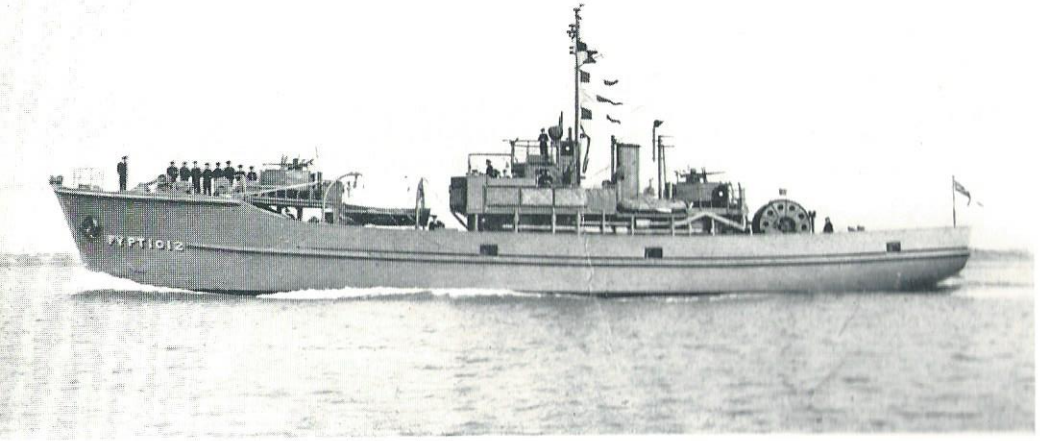
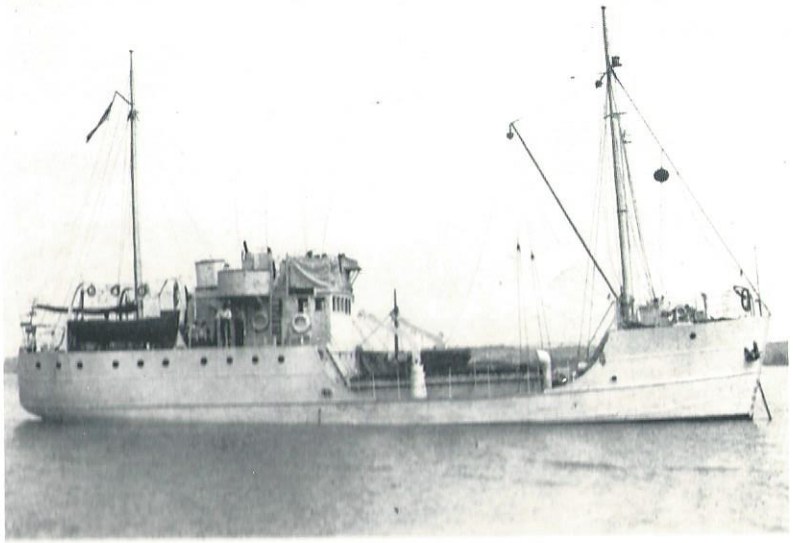




terest as examples of the many craft operating behind the fighting ships during "working-up" periods. The "spent" torpedoes are retrieved by crane and lowered into specially-designed rackage in the holds. Several of these and similar types of craft were built at Rowhedge during 1939–45.

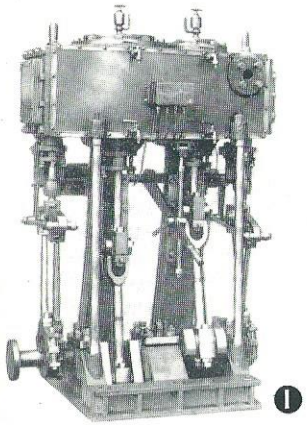
This necessarily somewhat sketchy account of the work done by Rowhedge for the Services will nevertheless indicate something of the extent and length of association with the departments concerned. It is a source of satisfaction to us that the confidence thus placed in Rowhedge is still fully maintained, as we hope it may be in the future; notwithstanding the fact that one of our earliest written records of such work, in the form of a directors' minute dated January, 1909, reads: "A loss of about £370 was incurred in the building of a sixty-foot Harbour Launch for the Admiralty".

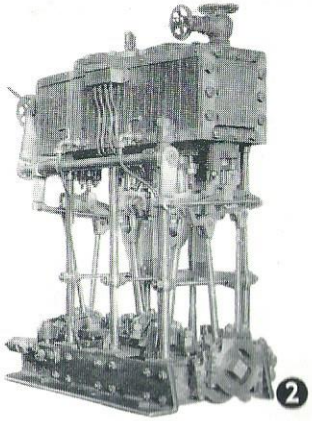
OPPOSITE PAGE, LEFT: Ship No. 602: One of three 60 ft. Mine Recovery Vessels for the Turkish Government delivered early in World War II. They were built of steel and galvanised

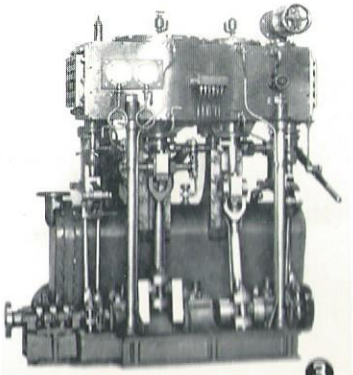
RIGHT: Ship No. 11. One of the many war-time Naval vessels from the Wivenhoe Shipyard was this 105 ft. Motor Minesweeper built, for obvious reasons, of wood

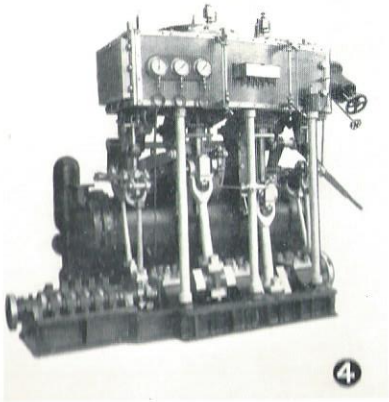
ABOVE, LEFT: Ship No. 30: The 126 ft. Motor Minesweeper was among the most workmanlike and impressive of all the wooden vessels evolved during World War II. This example was one of a long series from the Wivenhoe Shipyard

RIGHT: Ship No. 605: "Tin fish" which do not get away can be fired again another day. It was the function of this 103 ft. steel-built Torpedo Recovery Vessel to attend Fleet units engaged in torpedo practice







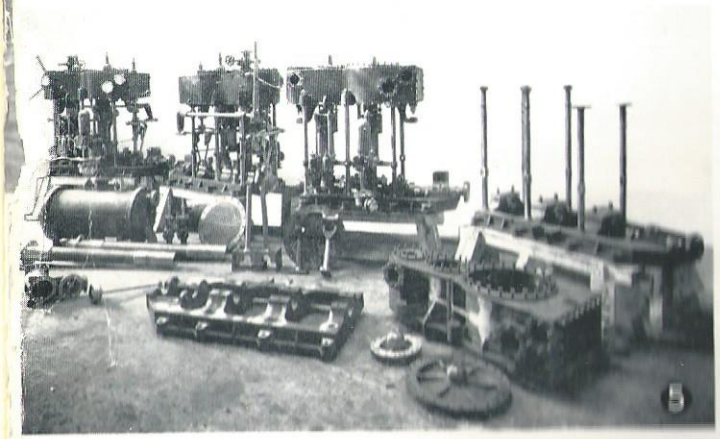


1: The first engine built at Rowledge was for a small river launch; non-condensing, it developed 30 I.H.P. at 280 r.p.m.

2: The smallest engine in our early range. With cylinders 4 in. and 8 in. diameter by 5 in. stroke, it developed 14 I.H.P. (non-condensing) and 16 I.H.P. (condensing) at about 360 r.p.m.

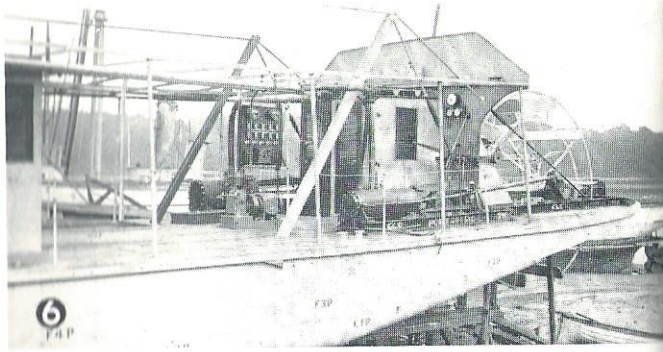
3 and **4:** Typical of larger engines then in standard production were these 8 in. and 16 in. by 10 in. and 10 in. and 20 in. by 12 in. sets. The larger engine was specially designed for tug installation.

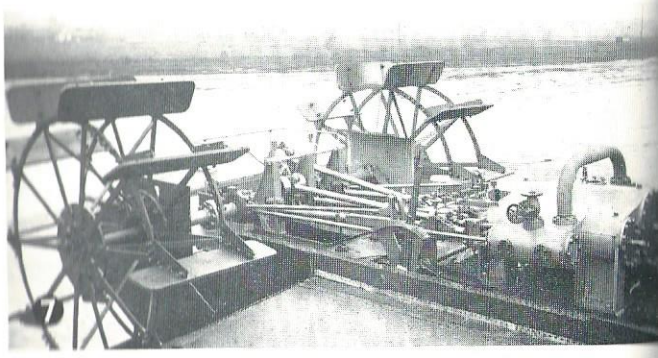
5: Engines under erection for 53½ ft. Harbour Service Launches during World War II, when steam was used to ease the load on diesel engine manufacturers

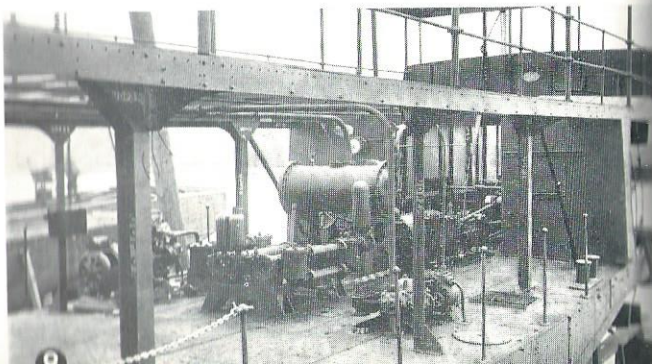


6: A 10 in. and 17½ in. by 36 in. cross-compound unit for a single-sternwheel steamer

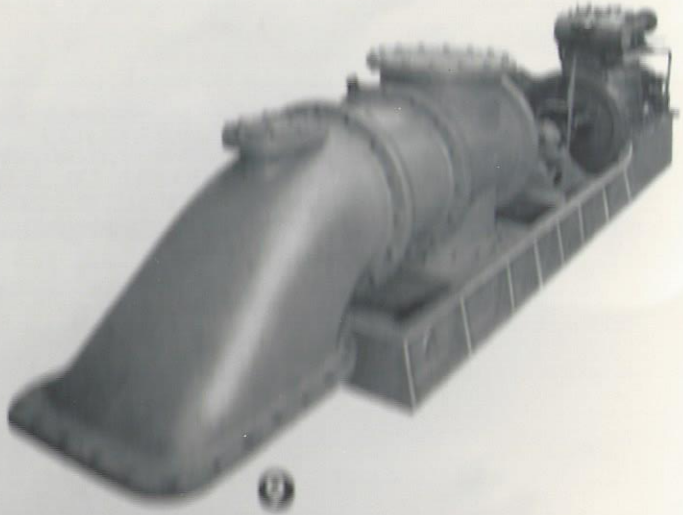
7 and **8:** 10 in. and 20 in. by 36 in. installations for quarter-wheel steamers designed to develop 80/85 I.H.P. at about 40 r.p.m.







9: A more modern example of our engine shop production is this diesel-engined pumping set incorporating a 20 in. Gill Axial Flow Pump. This particular set was for irrigation purposes



Talk of ships, think of steam

"WHERE ARE YOU going, all you big steamers?" wrote Rudyard Kipling; and there is no doubt that to the lay public at least almost any big ship is a steamer still and may long remain so, whatever the actual means of propulsion.

When Rowhedge was founded fifty years ago the reciprocating steam engine was, of course, in its heyday, and in the course of a few years we had produced designs and patterns for a complete range of marine units from 14 to 200 I.H.P.

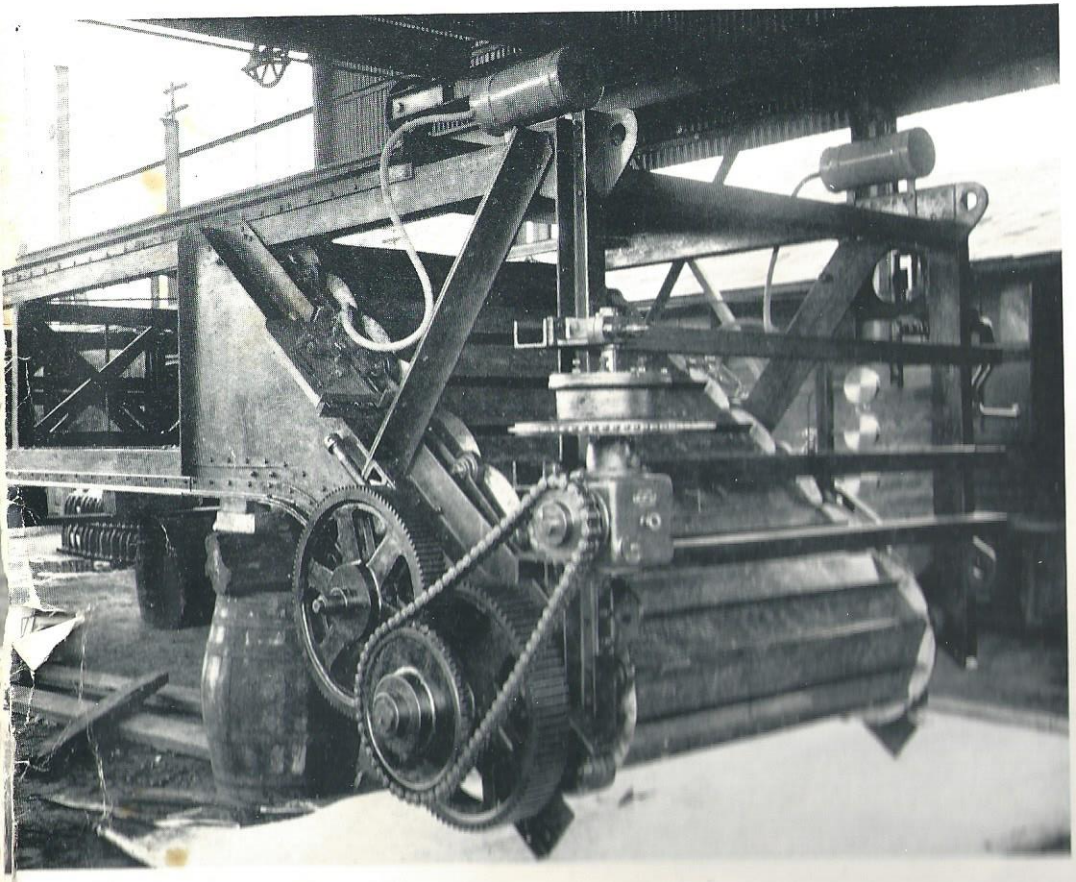
The first engine built in our works (illustration No. 1) was for a small river launch for service in Brazil and was of non-condensing type developing about 30 I.H.P. at 280 r.p.m. The smallest engine in our range (illustration No. 2) was built somewhat on the lines of contemporary naval machinery, with turned mild steel columns and embodying other refinements with a view to saving weight.

Larger engines of vertical marine type in standard production are illustrated (illustrations 3 and 4) by the 8-inch and 16-inch by 10-inch and the 10-inch and 20-inch by 12-inch sets. The larger engine was specially designed for a tug, which accounts for the massive horse-shoe thrust to withstand long periods of heavy towing.

More recent activity is shown by illustration No. 5, "Engine Corner", taken in our erecting shop during the 1939-45 war. At that time the Admiralty made use of steam machinery for certain vessels in order to ease the load on makers of diesel engines. The engines shown were for Harbour Service Launches and we produced thirty-four sets. Illustrations 6, 7 and 8 show examples of steam machinery developed for sternwheelers.

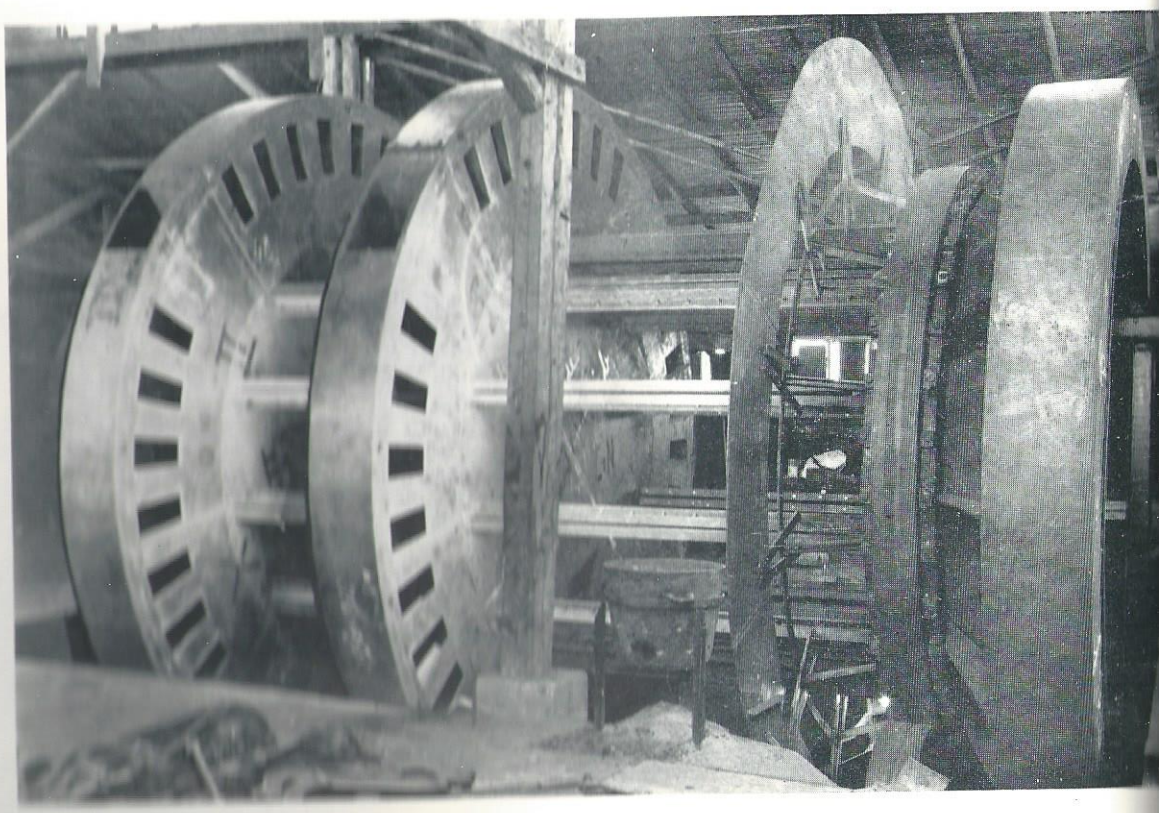
Since the decline of the reciprocating steam engine the department has sought new outlets as exampled by the diesel-engined pumping set shown in illustration No. 9. This incorporates a twenty-inch Gill Axial Flow pump which was built in our own shops under licence from the patentees. While this particular set is for irrigation work, a variation of the Gill pump is made for marine propulsion service as instanced on page 16.

10: Today the motive power of most smaller craft is provided by the factory-built diesel engine. Nevertheless, the experience gained by Rowhedge in building engines is of considerable value in planning and carrying out the most efficient installation possible in each given set of circumstances. The illustration shows the highly specialised machinery layout of an R.N.L.I. Life-boat



The business end of a circulating water intake screen, as used primarily by power stations. These vary in width as required from 18 ins. to 96 ins. and in length up to about 70 ft.

The rotors here shown under construction, and each about 20 ft. in diameter, belong to the *Egsetor*, a Danish-invented refuse destructor. The refuse is pulverised and converted into usable fertiliser. Intended mainly for municipal authorities, a battery of these machines is in use by the Kensington Borough Council



Not all our work goes to sea

WHILE WE AT Rowhedge do not subscribe to the too-sweeping claim sometimes voiced that "if you can build a ship you can build anything", the extreme flexibility demanded by ship work certainly is such that there are many kinds of general engineering which present the ship-builder with no untoward problems either in men or equipment.

The fact that Rowhedge has undertaken (as it continues to do) a substantial amount of such work does not imply that a visitor would find in the yards an indiscriminate admixture of sea-work and land-work. Constructional steelwork is undertaken by an entirely separate section but it nevertheless can be described as interdependent as well as independent. Both activities have something to gain from the existence of the other.

One example of our various contracts in the constructional engineering field is illustrated by the rotor of an *Egsetor*, this being the name given by its Danish inventor to a patent refuse-destructor. This machine which, broadly speaking, is a pulveriser of the two-stage, ball-mill type, is designed in particular for municipal authorities, its function being to reduce all manner of household waste to a finely-screened compost which is clean, free from objectionable odour and readily saleable as a fertiliser.

These huge machines, more than twenty feet in diameter, are externally driven at twelve revolutions per minute, absorbing about seventy h.p. The rotor, operating within an outer casing, is divided into four compartments in the first of which the rubbish is broken down by heavy cast-iron balls as the machine rotates. Screening takes place progressively as the material passes through the remaining compartments. A battery of three Egsetors was installed at the Wood Lane Depot of the Kensington Borough Council.

An entirely different type of constructional steelwork, but which assists in performing on a large scale a function common to ship work, is the framework of a circulating water intake screen. These screens, which are principally used at power stations, embody an endless belt of link mesh which is kept steadily moving by mechanical means as the water passes through it. They vary in width from eighteen inches to ninety-six inches and are made up to about seventy feet in length according to the requirements of the particular plant. Similar units are also employed in screening the intake at waterworks before filtering and in screening process water for various types of industrial undertaking.

The second fifty years

WE HAVE MENTIONED earlier that our policy at Rowhedge today, as in the beginning, is to bring to the construction of the smaller and more specialised type of vessel the same calibre of experience and progressive technical knowledge which is applied to the production of the largest ships afloat.

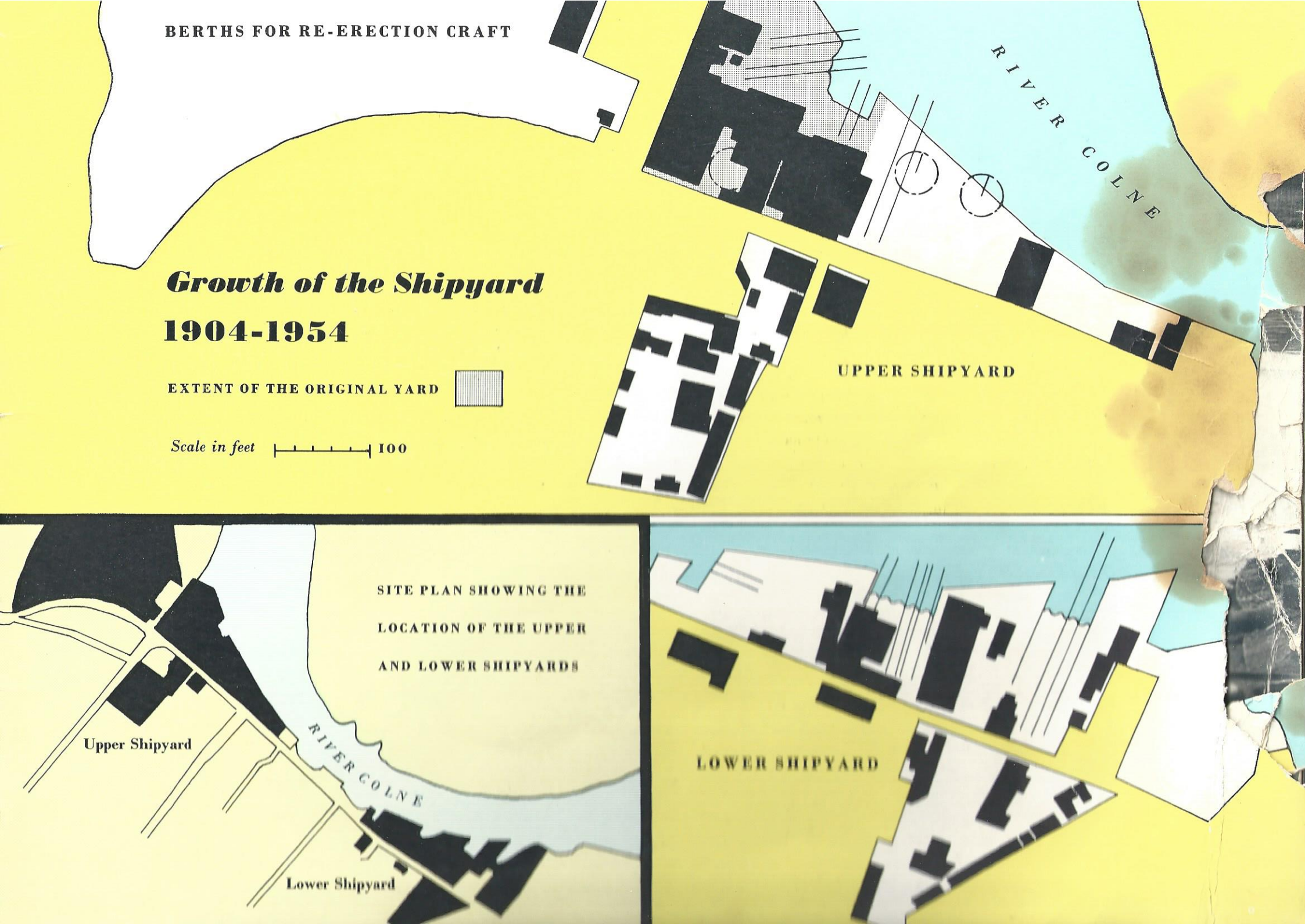
The severity of service which a given craft is called upon to undergo is often entirely out of proportion to her size. Moreover, she is frequently called upon to undergo it for a term substantially longer than either owners or builders originally contemplated. Thus, every vessel built by us (and others like us) is in a sense a hostage to the future, for even in her old age a ship, and her builder, is apt to be judged by the work she does and how reliably she does it.

We would not have it otherwise; for although we would be less than human if we did not occasionally feel that our products last too long, there is a certain astringent stimulation in having to labour under the compulsion of thinking two, three or more decades ahead. It breeds, we think, a brand of forward thinking which can be usefully applied not only to the products of the yard but to the yard itself. If, as we believe, Rowhedge yards and Rowhedge methods are as different fifty years from now as are today's from a half-century ago, it will be because we try, by a continuous if not spectacular process of improvement, to anticipate the shape of ships to come.

A final word: no business, least of all a shipyard, can be better than its customers and its work-people allow it to be. Rowhedge acknowledges that it has been fortunate in both. A second fifty years, and perhaps another thousand ships, are a challenge which, with similar support, we feel more than ready to meet.

THE ROWHEDGE IRONWORKS COMPANY LIMITED

ROWHEDGE, NEAR COLCHESTER, ENGLAND


BERTHS FOR RE-ERECTION CRAFT
RIVER COLNE
Growth of the Shipyard
1904-1954
EXTENT OF THE ORIGINAL YARD
Scale in feet
100
UPPER SHIPYARD
SITE PLAN SHOWING THE
LOCATION OF THE UPPER
AND LOWER SHIPYARDS
Upper Shipyard
RIVER COLNE
Lower Shipyard
LOWER SHIPYARD

Designed and printed by Benham and Company Limited, Colchester