A fairly typical example of the many passenger-carrying craft which have gone down the Rowhedge ways is the twin-screw Ferry Boat (Ship No. 673) *Hotspur IV* for General Estates Ltd. One of three built for the same owners, she is an even more familiar sight in Southampton Water than the *Queen Elizabeth* for she helps to maintain the essential all-year service between Southampton and Hythe. She is registered for the accommodation of 280 passengers and has a speed of nine and a quarter knots.

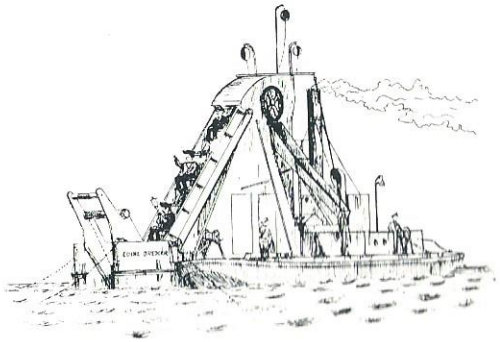
Particular pleasure at Rowhedge is always accorded to orders for tugs, providing as they do (especially to the engineers) a wide-open opportunity for the application of many special features. The *John Hawkins* (Ship No. 674) typifies the way in which the strength, power and general no-nonsense requirements of a tug can be met without detracting from good appearance. She is the third built for John Hawkins Ltd. and such is the relationship between the two companies that a penny dated 1916 is handed back and forth between the respective Principals with each new order. This tug, which works on the Thames, is sixty-four feet overall and diesel-powered to give ten and a quarter knots.

Among the largest vessels built at Rowhedge is the *Ben Hebden* (Ship No. 675), illustrated on page 8; 145 feet overall and of 400 deadweight tons, she is the sixth of seven tankers constructed since 1931 for the National Benzole Company Ltd. for the British


TOP: Ship No. 592: An 83 ft. 8 in. Preventive Cruiser for Nigeria which also saw extensive war service as H.M.S. *Umbriel*

CENTRE: Ship No. 673: *Hotspur IV*, a 69 ft. Ferry Boat which is a familiar sight on the Southampton Hythe run

BOTTOM: Ship No. 674: The *John Hawkins*, a 64 ft., 295 h.p. Thames tug, is the third for the same owners



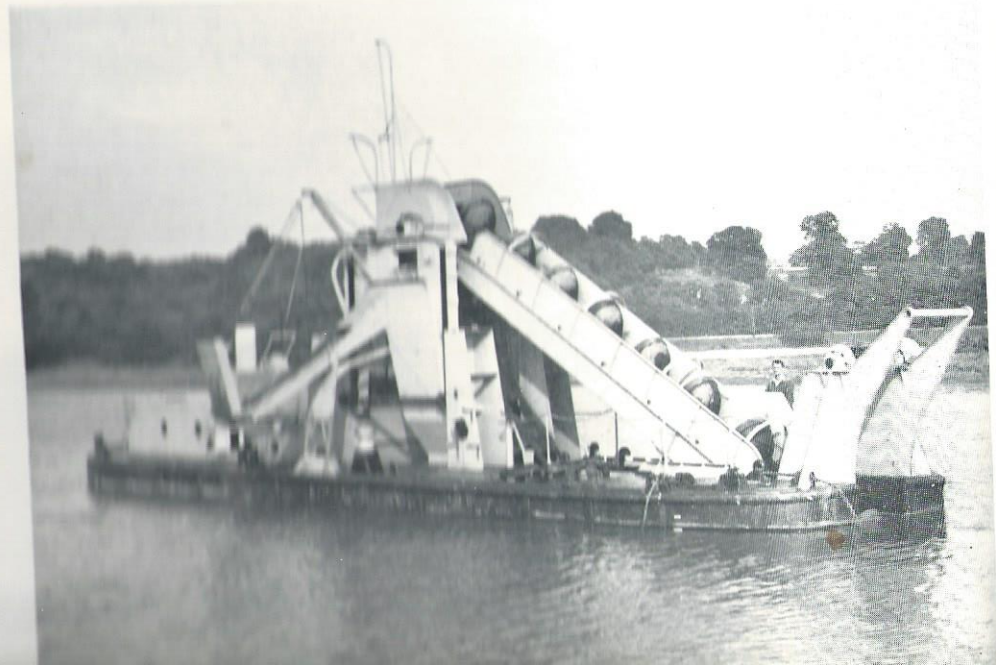
Launching parties should, and do, have about them an element of lightheartedness. That this infects even the Drawing Office is seen from this sketch for the luncheon menu card on the occasion of the launching of the *Colne Dredger* for Colchester Corporation

coastwise petrol traffic. With the exception of one lost during the war, all are still in active service. Having a speed of ten and three-quarter knots, *Ben Hebden*, as is the case with all Benzole tankers, is named after a director of the owning company. On this occasion, however, the director concerned had to leave for the United States before the scheduled launching date and this was therefore brought forward to meet his arrangements. It meant, however, that there was no time left in which to paint the hull of the ship before she took the water. As a result *Ben Hebden* will forever be referred to as "the unpainted lady". This necessary omission was promptly rectified in dry dock. It was at the launching of this particular vessel that the Managing Director of the owning company said: "Some of the finest little tankers ever seen around the British Isles have been produced at Rowhedge".

A craft of a very different kind, but which presented problems of her own concerning speed-loss in a narrow and shallow waterway, was *Dolphin* (Ship No. 685), built for the River Weaver Navigation Trustees and now operated by the Docks and Inland Waterways Executive. She was, in fact, nationalised while in course of construction. Before the design was finalised it was made the subject of a number of tests at the National Physical Laboratory, Teddington. A steel-built, self-propelled Hopper Barge, *Dolphin* is ninety feet in length and is powered by a Gardner 8L3 diesel giving a speed of six knots on a deadweight tonnage of 280. On completion of trials at Rowhedge, she was delivered to Northwich, Cheshire, under her own power.

A further example of Rowhedge versatility is provided by the diesel Bucket-Ladder Dredger (Ship No. 723) completed in 1951 for the Conservators of the River Thames. An unusual feature of this craft is the retractable superstructure enabling her to be used on the upper reaches of the Thames where there are a num-



ber of low bridges. With the superstructure down, this dredger has a maximum height of only eleven feet above waterline. She has a dredging capacity of 129 cubic yards per hour and a maximum dredging depth of fifteen feet. All winches are electrically controlled from one position on the starboard quarter.

Universally needed to keep merchandise and materials on the move the world over are dumb barges and allied craft and Rowhedge has constructed a great number of varying types and sizes. Representative of these are the two Steel Dumb Spirit Tank Barges (Ship Nos. 467/8) supplied for re-erection in the Sudan. Having a total deadweight tonnage of sixty tons each, carried in six tanks, these craft were fitted with water pipes, attached to the underside of the awning, providing a "sprinkler" method of cooling the deck which formed part of the tanks. We are at present building eight similar tank barges but in these the "sprinkler" method of cooling gives way to the less inconvenient and accepted present-day system of separate tanks within the hull form, with an air space between.

Typical of the coastwise and river service craft built at Rowhedge is the bulk tar carrier *Target*, Ship No. 526, to the order of Dorman, Long and Co. Ltd., of Middlesbrough. Completed in 1936, she has a speed of eight and a quarter knots with a deadweight tonnage of 260 tons and is used between the owner's works situated on the River Tees. Powered by a steam engine, there are steam heating coils at the bottom of the tanks to maintain the tar in fluid form, a steam jacketed pump installed on the main deck being used for on and off-loading.

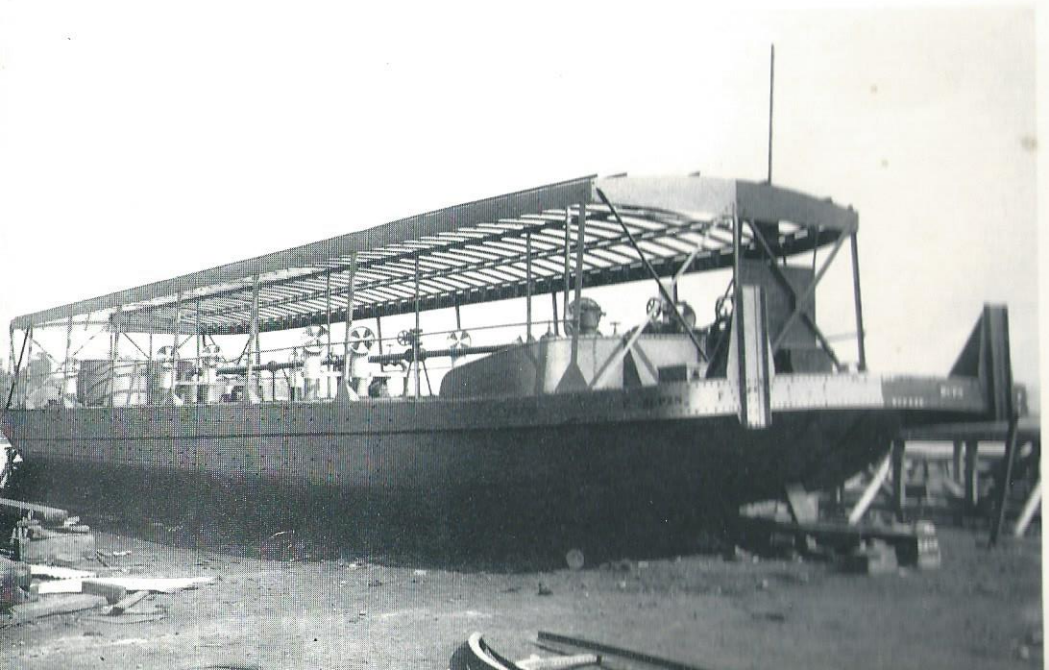
OPPOSITE PAGE, LEFT: Ship No. 685: Self-propelled Hopper Barge *Dolphin*, 90 ft. overall, was based on tests carried out at the National Physical Laboratory

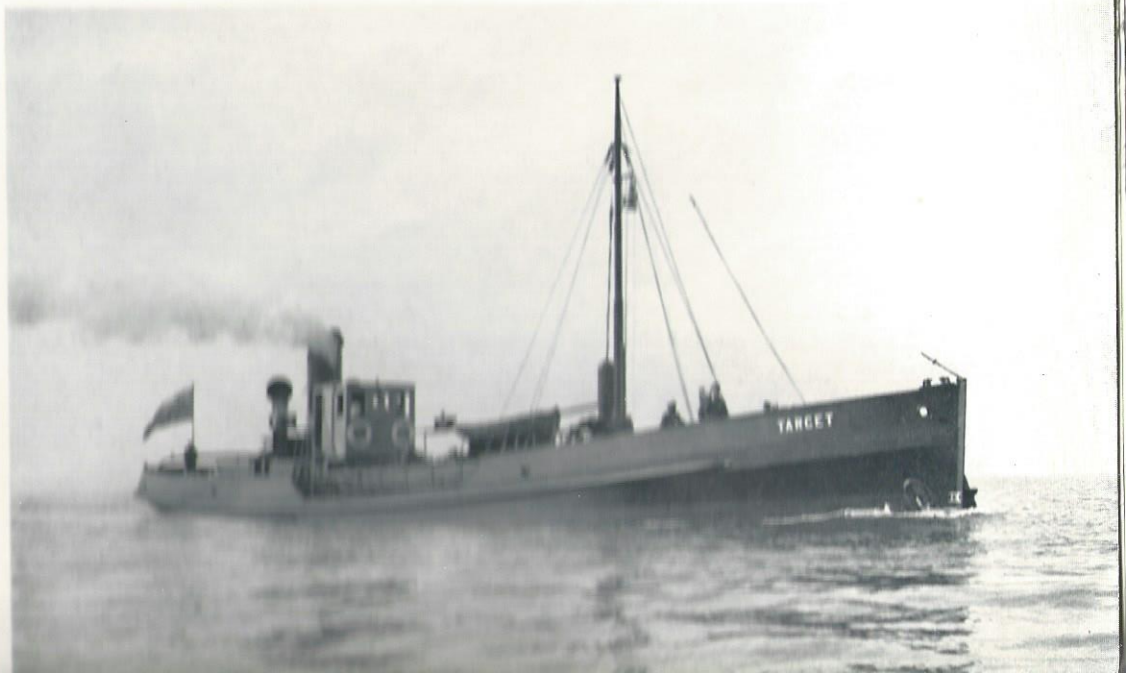
RIGHT: Ship No. 723: A diesel Bucket-Ladder Dredger for the Thames Conservancy. The superstructure is retractable

BELOW, LEFT: Ship No. 467: This 80 ft. Dumb Spirit Tank Barge is typical of the many Rowhedge craft designed for overseas re-erection

RIGHT: Ship No. 526: The 129 ft. 6 in. bulk tar-carrier *Target*. Tank heating coils keep the tar fluid on passage





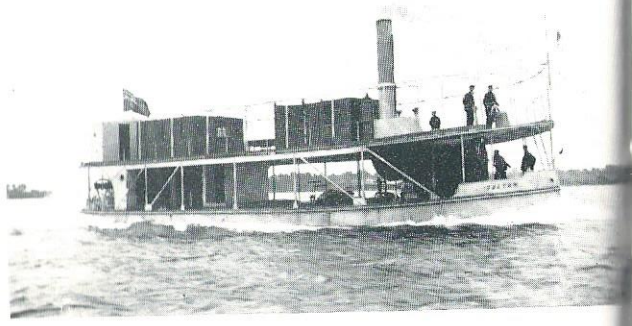


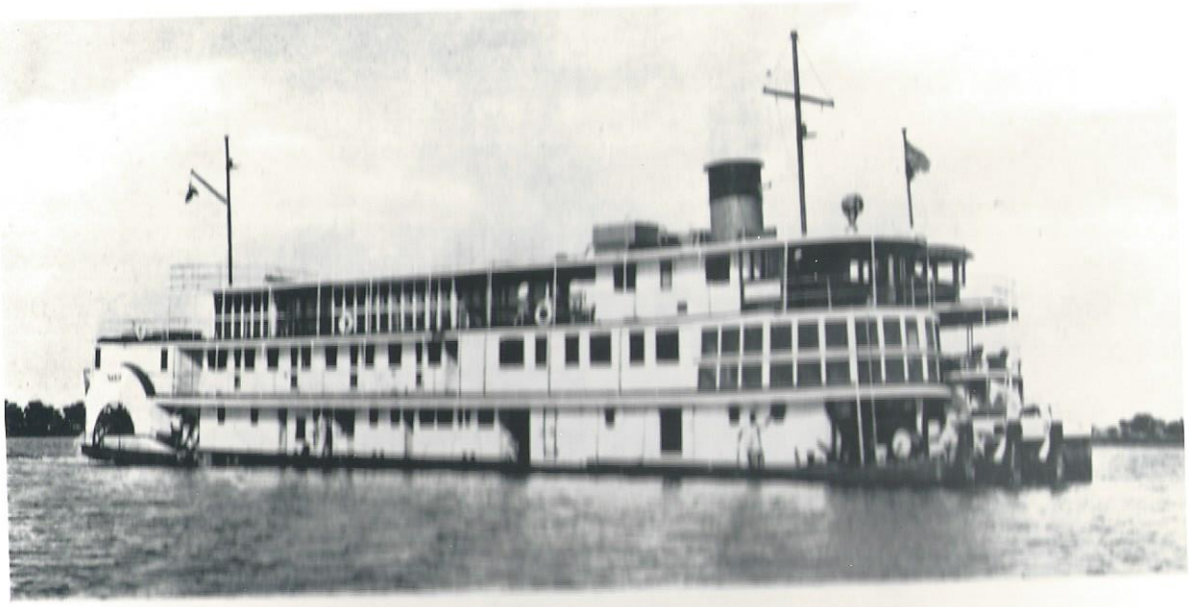

The distinction of being the subject of this Sudan Government airmail stamp belongs to the *Rejaf*, another shallow-draft stern-wheeler from the Rowhedge yards

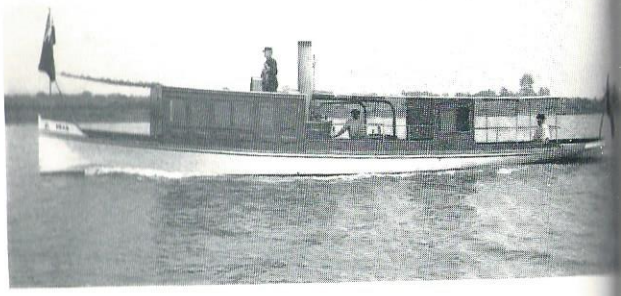
RIGHT: TOP: Ship No. 21: The *Sultan*, one of our earliest vessels (1906) built for re-erection overseas. She was 79 ft. 9 ins. in length on a draft of only 22 ins.

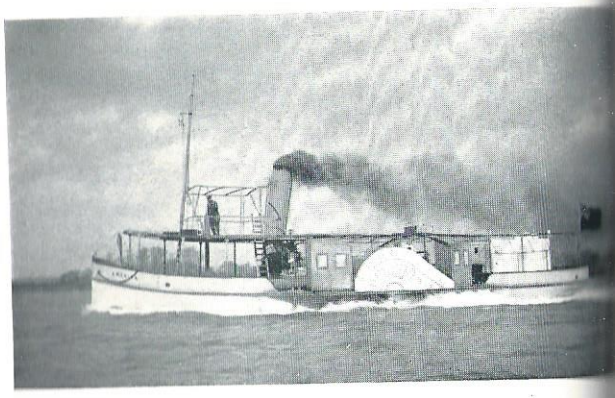
CENTRE: Ship No. 47: *Arab*, later *Shamrock*, vintage 1908, a 45 ft. steam launch for private use on the River Nile

BOTTOM: Ship No. 99: The 70 ft. *America*, built for Brazil, was shipped out bodily









Ship No. 426: The *Nasir*, one of the stern-wheelers built for the River Nile service of the Sudan Government, is 139 ft. in length with a draft of only 3 ft. 6 ins. A sister-ship, the *Omdurman*, in 1929 carried the then Prince of Wales on one stage of his dash back to London at the time of the illness of King George V

# Barely in their element

NICHOLAS (*The Cruel Sea*) MONSARRAT, describing one of his earlier escort commands in World War II, commented that she was so tender that undoubtedly she would have "rolled on damp grass". To the best of our knowledge no such comment has been made of a Rowhedge-designed vessel. On the other hand, it could have been said of quite a number of our craft that they could almost have been *navigated* on damp grass, so little water—designedly—did they draw.

Over our fifty years of existence we at Rowhedge can fairly claim to have become specialists in craft which have been in direct reverse of the iceberg principle. Moreover, this has been coupled with an equal degree of specialisation in re-erection vessels. In many cases, though by no means always, the two techniques have had to be combined in the same craft.

One of the earliest of such vessels was the quarter-wheeler *Sultan* (Ship No. 21) built to the order of the Crown Agents for the Colonies in 1906 for service on the River Niger. This vessel was built sectionally and, after running full trials on the Colne (one of the very few stern-wheelers to have startled the local populace in this fashion), was dismantled into sections for re-erection in Nigeria. She had an overall length of seventy-nine feet nine inches on a draft of one foot ten inches which places her very little outside the damp grass category.

A 45-footer (Ship No. 47) with one inch less draft was the private river launch *Arab*, later *Shamrock*, built for Lt.-Col. Western for use on the River Nile. An exceptionally clean-run design for that period (1908) she had a speed of eight and a half knots.

Making about the same speed with twin engines was the seventy-foot side-wheel steamer *America* (Ship No. 99) built in 1911 for James Pollock, Sons and Co. For service in Brazil, this vessel was shipped in complete hull form but her machinery was lifted out alongside the ocean steamer and taken on the same delivery. *America* was steamed round from the Colne to London Docks in typical March weather, giving her Rowhedge crew a rougher passage than ever their contemporaries would have in Brazil.

A craft (not illustrated) with a claim to uniqueness which is hardly likely to be challenged was the *Carolina* (Ship No. 106, 1912). She had to be designed for re-erection on site in sections not exceeding eighty-four pounds, this apparently representing the maximum load which could be taken by the llamas which would have to transport her from the arrival port to Lake Titicaca, the highest lake in the world, 12,500 feet up in the Peruvian Andes. A steel passenger launch of forty feet, powered by a semi-diesel forty-eight h.p. Gardner engine, she was duly shipped in appropriate

bundles. That no vital llama took the wrong turning *en route* is evident from the fact that she is still in successful operation.

Probably few builders can claim that one of their products forms the subject of a pictorial postage stamp, but this distinction certainly applies to the *Rejaf* which appears on the current four and a half piastre Sudan air mail stamp. She was one of four stern-wheelers built in 1928–9 for River Nile service for the Sudan Government. The *Nasir*, illustrated here, is 139 feet in length with a draft of only three feet six inches and was originally built as *Lady Baker II*, the name being changed at the time of conversion from steam to diesel. The first two vessels constructed to this contract have a beam of twenty-six feet six inches, but at our suggestion and quite contrary to textbook calculations, the latter two vessels were given an increased beam of twenty-eight feet and have thereby gained a quarter of a knot in speed.

The demand for shallow-draft craft is by no means restricted to overseas and a typical example built for service in the United Kingdom is the *Royal Princess* (Ship No. 504), designed for passenger work on the Thames. Constructed in seventeen weeks in 1935 for A. Crouch and Company and re-engined in 1953 following arduous war and post-war duties, she remains a familiar sight on the Boat Race course and plying with holidaymakers from Westminster Pier up the Thames to such places as Kew and Hampton Court and downstream to the Pool of London and beyond. Twice since the war the Rowhedge annual works outing has taken the form of a "busman's holiday" aboard *Royal Princess* and there is no doubt that the personal interest which the staff naturally have in this craft has added to their enjoyment. The vessel has a permitted capacity of 380 passengers when operating above Greenwich. In 1948 a similar but smaller passenger vessel, *London Belle*, was built for the same owners.

Another passenger craft worthy of mention is the *Wroxham Belle* (Ship No. 528), built for service on the Norfolk Broads for the Yarmouth and Gorleston Steamboat Co. Ltd. The fact that all 180 passengers are accommodated in the wide-windowed saloon and that the latter is equipped with a retractable sunshine roof, makes her very reminiscent of the modern luxury road coach. Eighty feet in length with a speed of seven and a half knots, she was specially designed for easy manœuvrability and rapid ahead/astern reversing, both essential qualities for a craft of this size in the confined and congested waters of the Broads. Requisitioned at the outbreak of war, she saw service at Freetown and was afterwards sold to Thames owners with whom she is now operating.

That the principle of jet propulsion is by no means the exclusive brain-child of the aircraft industry is demonstrated by a number of Cane Punt Tugs built by Rowhedge in recent years for sugar-producing firms in British Guiana. Quite apart from the fact that they are heavily infested with weed, the canals there are so narrow that screw propulsion would cause severe erosive damage to the banks; thus the loaded cane punts have hitherto been hauled by mules. The hydraulic jet propulsion system designed and patented by the Gill Propeller Co. Ltd., installed in a suitably designed hull, not only solves the problem completely but serves a dual purpose. When not used for towing, the propulsion unit provides a means of irrigating the land and can deliver no less than 1500 *tons* of water per hour. The unit illustrated (Ship No. 768) has a David Brown engine giving a speed of five m.p.h. when running free and approximately two m.p.h. on a towing pull of about 300 lbs. At the present time designs are being prepared on the basis of previous experience to provide still better performance and efficiency in this important means of modernising a vital Commonwealth basic industry.

Mention has been made of our experience in craft for re-erection overseas. These, as may be imagined, demand a highly

TOP: Ship No. 504: A familiar sight on the Boat Race course and on London River generally, is *Royal Princess*, 114 ft. in length. She was completed in seventeen weeks

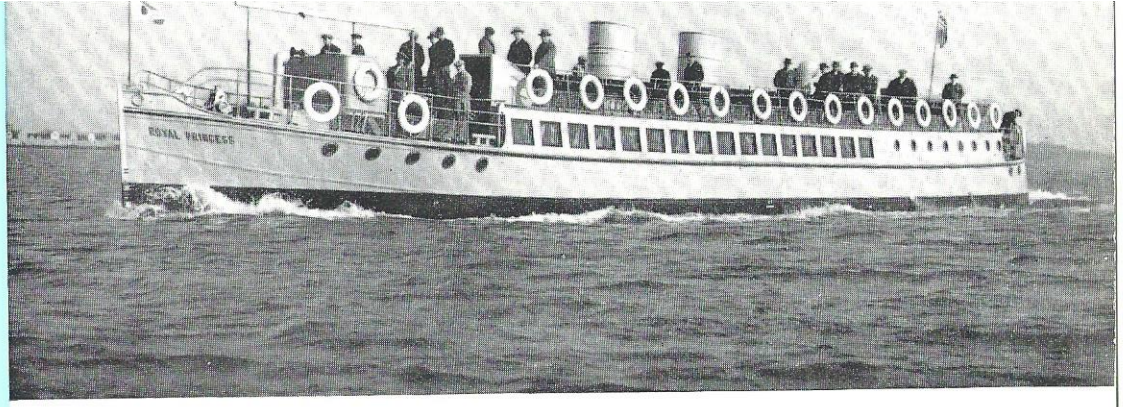
CENTRE: Ship No. 528: *Wroxham Belle* carried 180 passengers in one modern saloon on the Norfolk Broads. 80 ft. in length, she is exceptionally manœuvrable

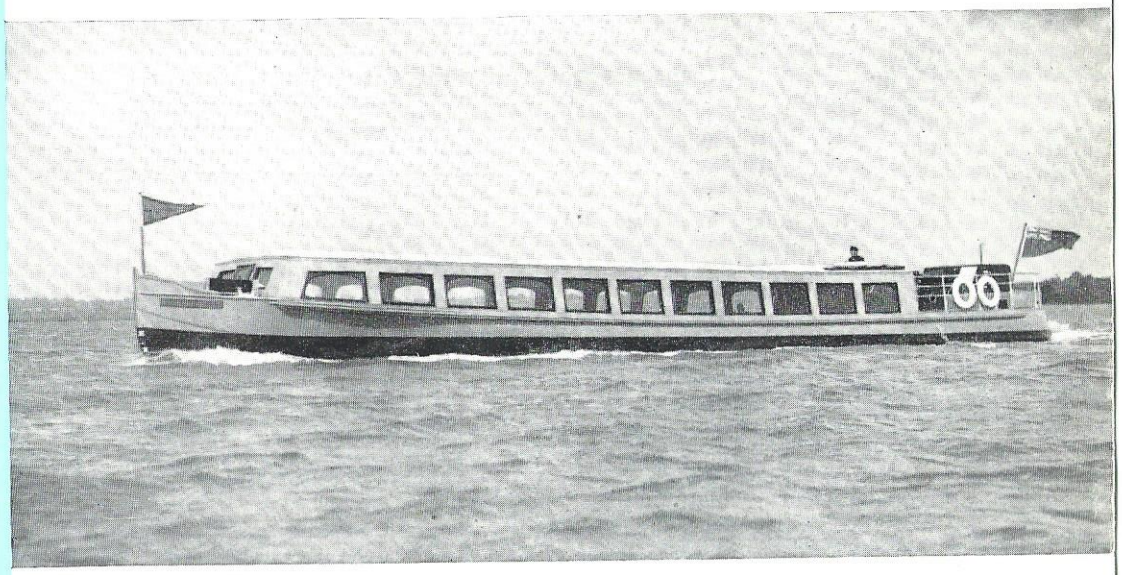
BOTTOM: Ship No. 768: A Cane Punt Tug designed for use on sugar plantations under difficult conditions. She is "jet-propelled"

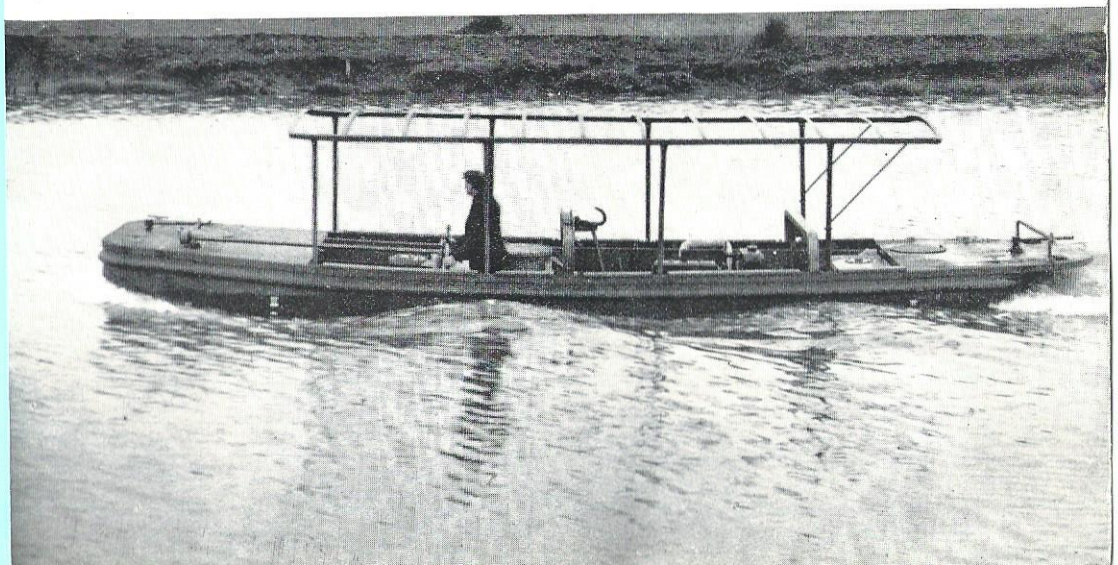
specialised technique and an unremitting capacity for taking infinite pains both in the design stage and in actual construction. Many of these craft have necessarily to be assembled at destination with restricted facilities and inexperienced labour, and exceptional trouble must therefore be taken to avoid ambiguity and the possibility of error. Not only does this call for exhaustive and extremely accurate drawings but also for the comprehensive identification of parts; an example of one device adopted to aid correct and easy reconstruction is the painting of all port and starboard sections in distinctive colours.

It is frequently a source of surprise and speculation to visitors to Rowhedge to see craft of quite substantial size being built well away from the river. They wonder by what magic means we get them in. The answer, of course, is that craft of this type for service overseas cannot run trials in the United Kingdom and so do not touch water at all until they are reassembled and launched at their eventual destinations, perhaps on the other side of the world.

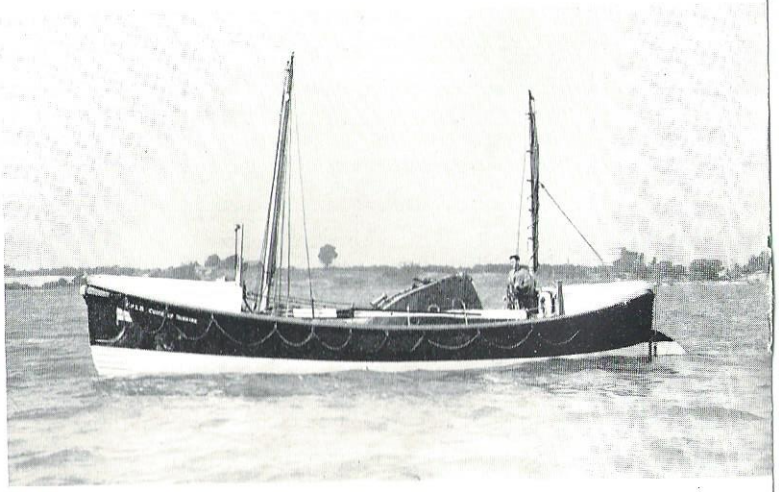








Ship No. 570: Certainly among the aristocrats of wooden craft are the R.N.L.I. Life-boats, and not least the 35 ft. 6 in. *Guide of Dunkirk*



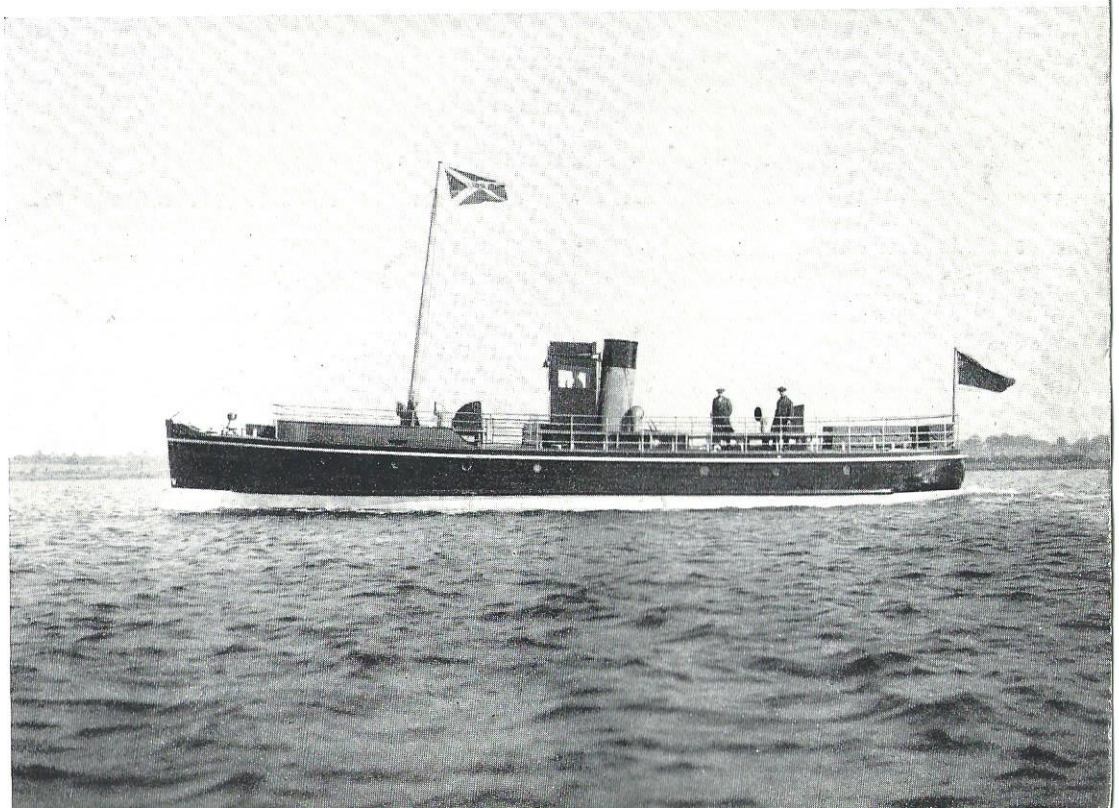
# *Their skill matured in wood*

"IT IS WORTH noting that a yard which builds Life-boats *has* to be capable of first-class work." This allusion is, of course, to Life-boats built for the Royal National Life-boat Institution and it was made, not by us, but by a regular contributor to the well-known journal *Yachting World*. It expressed no more than the fact, since the specifications of the R.N.L.I. are necessarily highly exacting as also are the standards insisted upon in carrying them out.

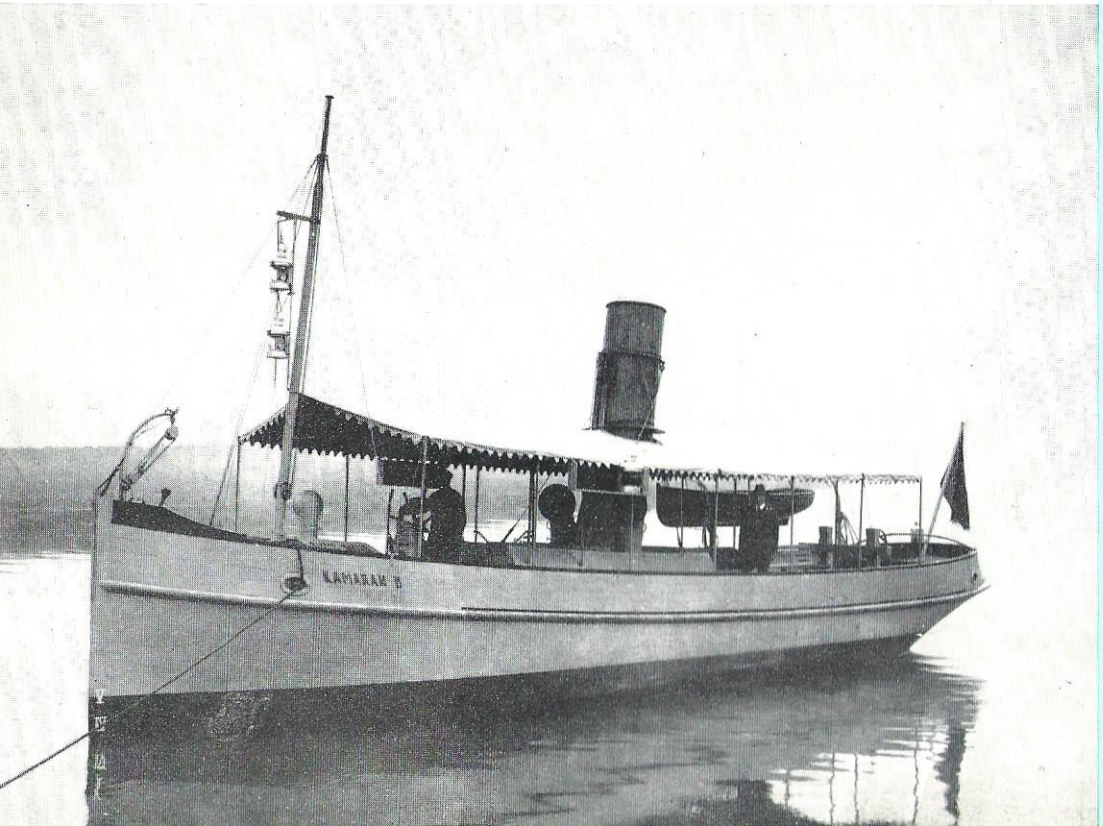
It is therefore a source of considerable satisfaction to us that Rowhedge have been entrusted with the construction of a number of these supremely specialised craft and that the yard is rarely without one or more station Life-boats undergoing periodic overhaul or repair.

Despite the "Ironworks" in our name, the yard has always been more than ready to undertake vessels built wholly or partly in wood. It is in fact in the natural order of things that the tradition of inherent craftsmanship in wood goes back many generations before the time when iron was first considered to have a reasonable chance of floating. It is, moreover, a tradition which survives strongly and, fashionable though it sometimes is to compare present-day craftsmen and craftsmanship adversely with the past, it cannot be seriously disputed that—with the aid of improved tools, materials and techniques—there was no time when a finer craft in wood could have been constructed than the present; if, indeed, as fine.

Well known locally among the many larger wooden craft which have been constructed at Rowhedge is the *Brightlingsea* (Ship



Ship No. 326: Built for the then L.N.E.R., the 70 ft. *Brightlingsea* operates the ferry service between Harwich and Felixstowe



No. 326), built in 1925 for the London and North Eastern Railway Company to operate the ferry-boat service between Harwich and Felixstowe. Registered to carry 230 passengers, she had a trial speed of nine knots and is, twenty-nine years later, still in service under British Railways ownership.

Also built in 1925 was the sturdy wooden steam tug to the order of Jones, Burton and Co. for service in Aden and the neighbouring islands. Named *Kamaran II* (Ship No. 335) she was powered by a steam engine of our own make to give a speed of eight and three-quarter knots. This vessel later made headlines in the daily Press when she rescued boatloads of refugees from the port of Hodeidah (Yemen) and, to escape the bloodshed and looting which took place during the war between Saudi Arabia and Yemen in 1934, towed them to the safety of the British-protected island of Kamaran in the Red Sea.

An unusual craft built in 1935 was the *Armand Ruffer* (Ship No. 505). Classed as a Dispensary Launch, she was for the use of the Medical Port Officer at Port Suez. Forty-six feet overall, she was constructed of teak and powered by a sixty-eight b.h.p. Ailsa Craig engine to give a speed of nine and a half knots. As will be seen from the illustration, this craft bears some similarity in general lines and form to the fifty-two and a half foot Harbour Service Launches developed and used by the Royal Navy at bases all over the world.

One of the most recently-launched Rowhedge productions, Ship No. 833. She is a 50 ft. wooden-built Police and Pilot Launch for the Aden Port Trust, diesel-engined (twin Perkins S6M) to give a speed of 12½ knots

Ship No. 335: *Kamaran II*, a sturdy 60 ft. steam tug delivered in 1925 for service in the Aden area