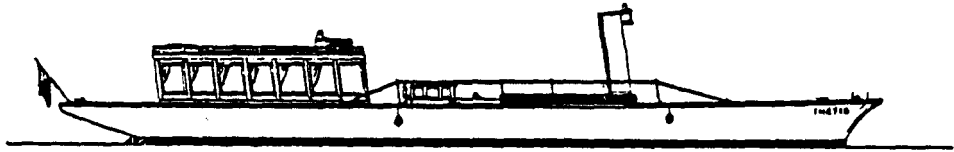


STEAMBOAT-BUILDERS OF BRIMSCOMBE (Part 1)



'Thetis', 1887, by Edwin Clark & Co. for the Argentine

By A M LANGFORD

INTRODUCTION

Airplants, manufacturers of ventilating equipment, and Oakmills & Cousins Matthews Ltd., furniture makers, now occupy the two sites formerly used by the Brimscombe boatbuilding firms, famous at one time worldwide for the quality of their steamboats. An engineering business had been set up at one of the sites in 1878. This was taken over by Edwin Clark & Co. Ltd. in 1897. Financial problems which followed were partly solved by Messrs Isaac J Abdela & Co gaining an interest, probably in mid-1898 to be followed in late 1900 by complete takeover. The firm was reconstituted as Isaac J Abdela & Mitchell Ltd shortly afterwards. After further financial problems some 25 years later, the business came under the control of Isaac J Abdela & Mitchell (1925) Ltd, and after another take over by 1930 the boatbuilding was operated under the name of Abdela-Mitchell (W Smith). Airplants is the concern founded by the Smith family.

EDWIN CLARK & CO. 1884-1897.

The Market Scenario.

In the last quarter of the 19th century, the possession of a private steam launch conferred upon its owner both the pleasure and the status comparable to those enjoyed by owners of light aircraft in the 1930s. During the middle of this period, individual prosperity and good summer weather combined to create an avalanching demand for private river craft, certainly in the country generally if not in Gloucestershire itself. Gloucestershire's woollen mills were then suffering from a tailing-off in public demand for traditional broadcloth, but many mills were still at work, providing a need for general engineering enterprise nearby.

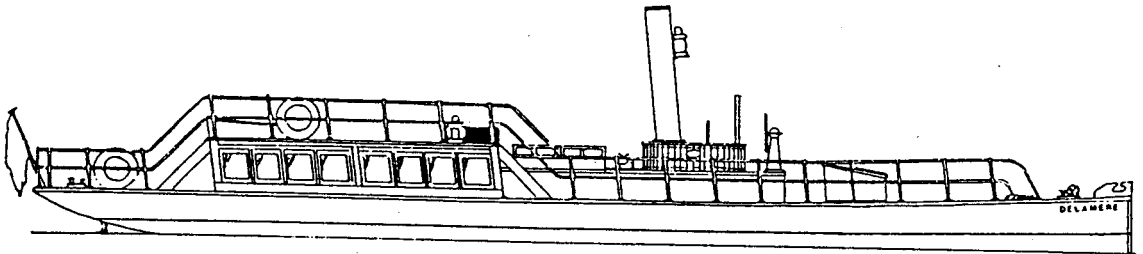
Edwin Clark and his Enterprise.

Launch production on the Thames and its tributaries had evolved to the building of steam screw-driven vessels, usually of steel. Such launches were made by the firm of Gabriel Davis of Abingdon, which had employed as designer Edwin Dawson Clark. He had joined the company in 1882 and, during his eighteen months there, had become both draughtsman and assistant manager.

Edwin Clark was the son of a Reading lead merchant. He had originally served an apprenticeship with Hayward Tyler & Co of Luton Works, a manufacturer of reciprocating pumps. Later, Clark worked as an improver with the famous Lambeth marine engineers - Maudslay, Sons & Field, and then for Thetford engineers and traction-engine builders, Charles Burrell & Sons Ltd.

Striking out on his own at the age of 23, Edwin Clark brought his expertise to Gloucestershire, first setting up home in 1884 at Quarry Farm Cottage, Thrupp.(1) He married in July, Ann Baker Payne, daughter of an Abingdon miller, and founded his firm of Edwin Clark & Co. at Hope Mills, Brimscombe, extending to Canal Iron Works on the opposite bank of the Thames & Severn Canal. Both sides were technically within the Parish of Rodborough.

For several weeks from 6 December 1884, Clark advertised in the Stroud Journal as "General Engineers and Millwrights, Iron and Brass Founders, Makers of combined vertical or horizontal stationary engines and boilers". Estimates were "given free for all classes of ironwork, shafting or repairs". He had for sale "a 4 h.p. vertical engines and boiler, new and well-finished". These activities were advertised from the Canal Iron Works site. From Hope Mill he claimed "Importers, Manufacturers and Refiners of Lubricating Oils, Wool Oils, Linseed and Boiled Oils, Cylinder Grease, Wheel Grease, Black Varnishes, Turpentine, Mixed and Oxide Paints". This was the "Branch Stores" of "Lead and Oil Mills, Reading", obviously the venture of Henry Clark, Edwin's father.(2)



'Delamere', 1892, by Edwin Clark & Co. for the River Weaver Navigation

Steamboat Production.

He soon launched his first vessel, named "Gordon" (3) after the besieged General Gordon (killed at Khartoum not long before) on 13 April 1885. "Gordon" was a steel screw-driven launch with upright stem, counter-stern and locomotive-type boiler. This craft was probably destined for the punitive Nile Expedition initiated in 1884 which had generated a substantial requirement for river vessels. Two of Thomas Cook's steamers had been lost in the campaign, and early in 1885 five shallow-draught stern-wheelers from Thornycroft's yard, seven from Yarrow's, and ten from Elder's, were either already supplied or in production for the War Office.(4)(5)

A principal reason for Clark's chosen location at Brimscombe was the access to the Thames via the Sapperton Tunnel.(6) A lucrative trade lay in that direction, but this factor did not inhibit his capacity to serve the export market. A number of boatbuilders, including the more famous companies just mentioned, constructed vessels in sections, to be carried by sea and overland. They were then reconstructed for long-term service on barely accessible lakes and stretches of river in Africa, Asia and South America. Edwin Clark, too, specialised in such prefabrication, sending steamboats to all quarters, with more conventional craft to European customers.(7)

For the time being, in 1885, 1886 and 1887, Clark built small private launches ranging in length from 28 to 45 feet, for both home and export markets. In March 1888 Clark sent on its way to Mr. Bona of Reading a 72-foot Thames launch, "Fashion". Clark was obviously proud of this vessel: he used an engraving of "Fashion" on his letterheads even six years later, after building a number of steamboats of comparable size.(6) It was capable of carrying 150 passengers, and was later used in the Thames swan upping ritual.

In November 1888 Edwin Clark delivered the "Edward Auriol", a steamship designed for work in the often troubled waters of the Thames Estuary. Built for the Thames Church Mission, "Edward Auriol" was intended for the purpose of meeting incoming ships, distributing bibles and Christian literature, and holding religious services. The 51-foot teak-decked steamship was very soundly constructed to meet the rigours of the sea, being built of Landore sheet steel, with frames spaced at 18 inches along a keel fashioned from 4 x 1 in. bar iron. It was powered by a pair of compound surface-condensing engines of 86 indicated h.p. made by Edwin Clark. The return tube boiler was made by Seekings (later Sissons) of Gloucester, and fitted with safety valve equipment patented by Clark.(8)(9)

The larger-type vessel next produced is still afloat - the 72 foot "Oxford", now motor driven, moored at Evesham and renamed "Gaiety". "Oxford" was the first of 6 pleasure boats made at the yard for Messrs. Salters of Oxford: "Oxford" in May 1889, "Kingston" in June 1890, "Windsor" in April 1882, "Cliveden" in late 1892, and (after Clark's death in 1896) the 85-foot "Henley" in November 1896, and the "Nuneham" in 1898. These were all engined by Messrs. Sissons of Gloucester, and all were singlescrewed apart from "Oxford" with twinscrews. Salters also took delivery of the smaller "Swan" in February 1891, a fast launch used to coach the Oxford crew for the University Boat Race. "Kingston", "Windsor" and "Cliveden" were sent to Mesopotamia in World War I, serving in ambulance work, and ending their days under Iraqi ownership.

In February 1890 the 55-foot "Firefly" negotiated her way through the Sapperton Tunnel, to be shipped for use as a meat and provision boat servicing vessels lying off the Rio de la Plata. A graphic account of her journey was given in the Stroud Journal,(10) which reflected the deteriorating state of the Tunnel and which told of the temptation to pick off the 8-inch stalactite formations from the roof. "Firefly" had engines of 14 h.p. A remarkable departure from the norm was Clark's "The Jim", an electrically-powered 30-foot launch built for the Thames, probably in mid-1890. The powerful 50-foot "Wasp", a launch built for use in South America, appeared in 1891 and was capable of 15 m.p.h. In that year, the 60-foot "Bandersnatch", later renamed "Phantom", and the 40-foot "Hope" were delivered to Windermere for Mr. A.E. Sladen. They were probably capable of similar speeds.

The 45-foot "Frolic" was a startling sight in 1891. She was a beautiful launch made for a Mr. Fletcher of Belgium. She was constructed from golden coloured "Delta metal" and left unpainted, setting off teak cabins fore and aft, the teak decks and seats. She represented a class type offered generally for sale, but it is not known if any similar vessels were sold.

The 72-foot "Alabama" was built in 1892 for Thames use, followed in October of that year by the 70-foot "Delamere". "Delamere" was designed as an inspection launch for Col. Saner's use on the Weaver Navigation, and was sailed to Liverpool via the coastal route in October 1892.(11) Poor weather predominated, and about fourteen days were taken for the trip from Sharpness. "Delamere" survived until at least 1962, and was then described as "being built like a battleship and fit for another seventy years of life".

Active also until about 1934 was the "Eadale", a 28-foot side-wheel paddle-boat built in 1893 for clearing vegetation from the River Idle. She was the only known paddler by Edwin Clark himself. She had a locomotive boiler and horizontal cylinders. In September 1893 the "Doris" initiated a pedigree of tugboats, built at Brimscombe right through until the 1930s, 45-foot in length and with surface-condensing compound engines; her type was claimed to have been supplied in large quantities for work in Africa.(12) "Pioneer" was a launch of conventional appearance sold for dredging work on the Rivers Parrett and Tone in May 1894. This 51-foot vessel served in this capacity until 1917. "Kenia" and "Dankhali" were probably sisterships which in May were despatched on their way for work on Lake Nyanza. A photograph of "Kenia" shows her dismantled into sections for transport to the wild area of her future operations. Production of all these vessels was interspersed throughout with work in the boatsheds on conventional private steam launches destined for home and abroad.

Edwin Clark died in August 1896 of chronic lung disease. Probate was granted to his widow Ann, sole beneficiary and sole executor, in January 1897, and during this four-month interval, the Salter steamer "Henley" was launched, in November 1896, and the ambulance launch "White Cross" was finished in the previous month. The 65-foot "White Cross" was built for the Metropolitan Asylums Board as a vessel of shallower draught than their four other steamers. Her purpose was to ferry infected patients, usually with suspected smallpox, between isolation areas located at strategic points on the bank of the Thames and hospital ships moored near Dartford.(13)

Production volume at the yards during the Clark era is difficult to assess. About sixty names, culled from various sources, are listed in Appendix A; they may include classnames and re-names, duplicate names and vessels returned for refurbishment. It appears that such refurbishment was carried out, as Clark expected launches from Oxford in December 1894. In January 1894 he estimated that he would lose between £40 and £50 per year if the Sapperton Tunnel were to be closed: it cost £5 and took 2 days to deliver a launch to Oxford via the Tunnel, but £20 and 6 days to send them via Bristol.(6) This would indicate three medium to small launches per year for the Thames, apart from others sold elsewhere and the larger craft engined at Gloucester or unable to negotiate the Tunnel. In his application for membership of the Institution of Marine Architects in June 1893, Clark outlined his career so far and claimed production of 40 vessels.

Clark's Engines

Although Messrs. Sissons installed the engines in vessels built by Clark for Salters, and the glinting "Frolic" was engined by a Mumford compound, Clark built a variety of engines for marine and other use. One of them was installed in "Starlight" by George Horsham of Caversham in 1890, while another launch for Mr. Bona of Reading had a Clark engine installed probably in the same year.

Clark commenced his business in 1884, offering a 4 h.p. vertical engine. As this continued over some weeks it is likely to have reflected a standard item of production. Four years after Clark's death, during which period the firm had a difficult time, about 30 different engines could be produced.(7) This figure is likely to represent the culmination of Edwin Clark's own efforts. Four types of vertical single-cylinder high-pressure engines, nine types of vertical twin-cylinder vertical engines, and thirteen types of compound engines were offered in various craft in the interregnum following Clark's death. Of these only one example, a small 3½ x 4 in. single-cylinder engine, in private hands, is a confirmed survival. The "Edward Auriol" was powered with a 7, 13 x 8 in. stroke vertical compound, giving an indicated horsepower of 86.(8) The largest compound on offer was 10, 20 x 12 in., but two compounds together, or two twin-cylinder high-pressure engines, were also offered for driving twin-screws in two classes of vessel.

The Works and its Environment

Edwin Clark did not start completely from scratch. An engineering concern had been established on the site in 1878,(12) but Clark introduced steamboat building to the locality. A Survey by J. H. Taunton, the manager and engineer to the Thames & Severn Canal, listed in 1882 only pastureland and a brick-yard at the Canal Iron Works site.(14) Engineering was therefore more likely to have been done at Hope Mill in a building now flattened, which had immediately fronted the Canal. The Hope Mill site was shared: Charles Barton, one of the last of the Stroud Valleys' silk throwsters, occupied the other principal building, which survives, unhappily in truncated form. It is not known whether Clark or Barton used Hope Mill Cottages, the other major building on the site.

Originally communication over the Canal between the two sites would have been via brick bridges, a fair distance along the Canal in both directions, or over the gates at nearby Hope Mill Lock (otherwise known as Ridler's Lock or Barton's Lock). In mid-1887 Clark acquired the right to build a footbridge over the lock gates, ensuring a more prompt access for pedestrians.(15) A temporary structure was erected over the canal on his death to provide access for the funeral cortege.(16) Such a practice might have been used to shift bulky items in normal times. Although deliveries of iron for the Port Foundry have been noted in tonnage books, there appear to be no similar entries for Clark's works, but coal was a routine cargo to Hope Mill and Clark would have had access to this.

There was no large crane at the Works, the craft either being hauled to Brimscombe Port for boiler and engine installation or possibly to Wallbridge too. Obviously those engined by Sissons were taken to Gloucester. Access to the London Road was described as 'not a very good one' and in part 'steep'. The Brimscombe GWR Station was not far away and the line squeezed against the Canal Iron Works, by 1884 no longer broad gauge but evidencing the use of Brunel's curious longitudinal sleepers. In Clark's day the vessels were delivered under their own steam; those without engines would be hauled by men or 'hanimals'. There is no evidence of a Clark tug in regular use on the Canal; in 1878 Taunton had offered a tug for sale apparently only after a short trial, indicating possible impracticalities in their use on the Brimscombe side of the Tunnel.(18)

Nearby was the famous Phoenix Iron Works, a source of able workforce and friends for the Clark family, whilst the Thrupp Working Men's Club, of which Clark was a Vice President, and the Brimscombe Polytechnic, supported by Clark,(16) nurtured the welfare and Victorian "self improvement" of the local workers. By mid-1893 Clark's workforce numbered between 50 & 60 hands.

To meet growing production and diversification, the Canal Iron Works underwent an expansion over the period. By early 1887 "Hope Villa" had been built as Clark's second Brimscombe home; there was a boat building shed, a building (apparently serving as a machine shop), and between them a roofless structure. By mid-1887 only vestiges of the roofless structure remained, and the "machine shop" had been extended towards Hope Villa. By mid-1892 a high shed of corrugated iron had been built, and the 72-foot "Alabama" was being assembled in the open alongside the single boatbuilding shed. By 1896 a second boatbuilding shed had been constructed next to the first, and a two-storeyed building housing offices had been built by 1897 by the lock. Both of these may have been present in Clark's time, or they may have been added by the successor firm immediately afterwards.(19)

Edwin Clark & Co. Ltd. 1897-1900

Efforts were made to complete vessels on the stocks, and to continue the business. A limited company was formed, Edwin Clark & Co. Ltd., in the autumn of 1897, and John Waterman Earle was appointed managing director. In his application to the Institution of Naval Architects, Earle claimed seven years' apprenticeship with yacht constructors, Waterman Bros. Cremyll, Plymouth, continuing with them another 4½ years, four as Naval Architect with Summers & Scott of Gloucester from 1890, and from 1895 to 1897 with Rutherford & Co. of Birkenhead. Another source, however, claimed he was employed by Clark.(7)

The new firm was capitalised at a nominal £3000; only 1086 £1 shares were actually subscribed by January 1888. Publicity was gained for its products in a marine engineering journal,(12) and in a review of Stroud Valleys' industries.(15) There is also evidence that a catalogue was issued with vessels depicted under class names. All mention sternwheel steamers, a product hitherto not recorded in connection with the site. A sternwheeler was described as being built for use in Siam, a launch for service on Lake Nyassa and a turtle-decked

launch for the Thames. There is firm evidence for some 8 vessels, including the sternwheeler and the "Nuneham", the latter built for Messrs. Salters. These are listed in Appendix A.

Clearly difficulties had arisen. The Company agreed by resolution on 28 August 1899 for voluntary winding-up, the freehold of the business with the plant and stores was offered for auction on liquidation in June 1900 (20) and a Stroud News account in December 1900 (7) states that Isaac J Abdela & Co. had rented the site for the previous eighteen months. This stated that; the latter firm had just taken over the whole business. Thus the limited company of Edwin Clark & Co. Ltd enjoyed only a very short life.

(To be continued)

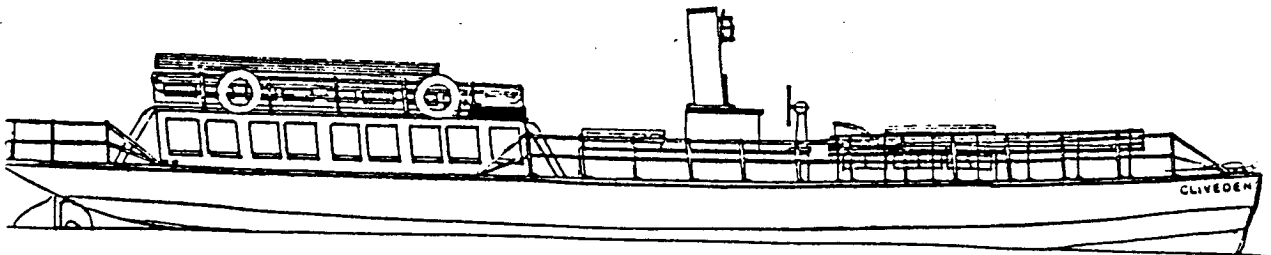
A M Langford © 1987.

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'Cliveden', 1892, by Edwin Clark & Co. for Salter's Thames Service

STEAM VESSELS BUILT AT BRIMSCOMBE 1885 - 1900

Name	Date	Lth	Beam	Depth	Dt	mph	CODE	Delivery
GORDON	*3. 4.1885	37' 6"	7' 0"	2' 6"		13	SL SS OP	Egypt
WATERWITCH OR WATER SPRITE	@27. 6.1885	35'						
PSYCHE	@17. 8.1886	45'					SL SS C.A	Thames
CYBELE	@18. 8.1886	35'					SL SS OP	Thames
RIO MAPIRE	(1886)	35'						S.America
THETIS	@ 9. 5.1887	45'					SL SS C.A	Argentine
DARLING	@30. 4.1887	35'					SL SS C.A	Italy
TITANIA	(1887)	45'						Thames
EMMA	(1887)	45'						S.America
LAPUTA	@29. 7.1887	35'					SL SS OP	Spain
FASHION	@28. 3.1888	72' 0"	10' 6"	4' 6"	42"	12	SL SS S.A	Thames
ENID	@21. 7.1888	28'						Spain
MIGNON	@ 8. 9.1888							
EDWARD AURIOL	@13. 11.1888	51' 0"	10' 0"	5' 6"			SB SS	Thames
DONOVAN	@ 2. 8.1889	35'					SL SS C.A	Spain
PEGGY	@17. 9.1889	28'					SL SS OP	Spain
OXFORD	@13. 5.1889	72' 0"	14' 0"	4' 6"	36"	12	SL TS CFSA	Thames
Wooden Pinnacle	(1889)	21'					SL SS OP	Peterboro'
FIREFLY	@ 8. 2.1890	42'					SL SS CA	S.America
THE JIM	(1890)	30'					EL SS OP	Thames
KINGSTON	@13. 6.1890	72' 0"	14' 0"	4' 6"			SL SS CFSA	Thames
PIONEER	(1890)	35'					SL SS CA	Uruguay
ADA	@27. 10.1890	35'					SL SS CA	S.America
SWAN	@ 3. 2.1891	42'					SL SS OP	Thames
CHOPINETTE	@21. 3.1891	35'	(also noted JL92 MR94)				SL SS CA	Worcester
WASP	(1891)	50'					SL SS CA	S.America
BANDERSNATCH	(1891)	60'	8' 3"	4' 0"		15	SL SS CA	Windermere
LEDA	@ 4. 6.1891	44'					SL SS CA	Thames
FROLIC	(1891)	45'	7'	4'	24"	10	SL SS CA	Belgium
HELGA	(1891)							Thames
WINDSOR	@13. 4.1892	72' 0"	14' 0"	4' 6"			SL SS CFSA	Thames
ALABAMA	(1892)	72'					SL	Thames
CLIVEDEN	(1892)	72' 0"	14' 0"	4' 6"			SL SS CFSA	Thames
HOPE	@24. 2.1892	45'					SL	Windermere
DELAMERE	@11. 10.1892	70' 0"	9' 6"	5' 0"			SL SS SA	R.Weaver
VASHTI	@15. 2.1893						SL	Thames
CECILIA ?	@ 8. 5.1893						SL	Thames?
EADALE	(1893)	28' 0"	13' 0"		18"		PB SW OP	R.Idle
SIRIUS	(1893)	45'					SL SS CA	Thames
CORAMO	(1893)	35'					SL SS	Thames
DORIS	@23. 9.1893	45'	9'				ST SS OP	N.Africa
PIONEER	@ 1. 5.1894	51'					SD SS OP	Somerset
ZARA	@ 1. 6.1894	27'					SL SS OP	Thames
RAMBLER	@ 3. 8.1894	30'					SL SS	Thames
ROVER	(1894)	15'					SL SS OP	Manchester
TRUANT	(1894)	27'					SL SS	Thames
PHOEBE	(1894)	15'					SL SS OP	Sharpness
IRENE	@ 6. 11.1894						SL	
KENIA	@30. 5.1895	42'					SL SS OP	L.Nyanza
DANKHALI	@30. 5.1895						SL	
STELLA	@24. 1.1895	37'	(also 5795)				SL	
BIJOU	(1895)	37'					SL	
RUWENZORI	@23. 8.1895	42'					SL	C.Africa
WALRUS	@13. 7.1895						SL	
MAUD	@15. 8.1895						SL	
PHYLIS	@ 4. 6.1896	27'					SL SS OP	Algiers
STELLA	@15. 8.1896		(also noted JL97)				SL	
INDIANA	@27. 4.1896	54'					SL SS	Thames
TRILBY	(1896)	30'						
HENLEY	@17. 11.1896	85'					SL SS SA	Thames
WHITE CROSS	@12. 12.1896	65' 0"	12' 6"	4' 6"	31"		SL SS CC	Thames
HUNTRESS	(1897)	54'					SL	Persian G
FINIS	@16. 03.1898						SL	
TIGRESS	(1897)	37'					SL	
NUNEHAM	(1898)	85'					SL	Thames
HAIDAH	@15. 4.1899	40'					SL	
KAMPALA	@ 4. 8.1899						SL	
'742'	(1899/1900)						PB QW	Africa
EDITH ?	(1898/1900)	77' 0"	16' 0"	3' 6"	12"		PB QW	Siam
ACTIVE +	(1898/1900)	47' 0"	9' 6"	5' 0"			SL SS CFCA	
DOT +	(1898/1900)	42' 0"	8' 0"	3' 8"	15"			

* launch date, @ last noted on canal, + seen in extract from catalogue.

SL Steam Launch. SB Steamboat. PB Paddleboat. ST Steam Tug. EL Electric Launch.
 SS Single Screw. TS Twin Screw. SW Sidewheeler. QW Sternwheeler. OP Open.
 CF Cabin Forward. CA Cabin Aft. SF Saloon Forward. SA Saloon Aft.
 Sources: GCHO TS Tonnage Books, D1180 Tonnage Books, D 2875/5/6,
 D 4693/22. Motor Boat 11.6.1920, Clark Family Album, Catalogue Extract.
 Stroud News, Stroud Journal.

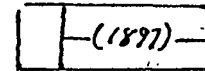
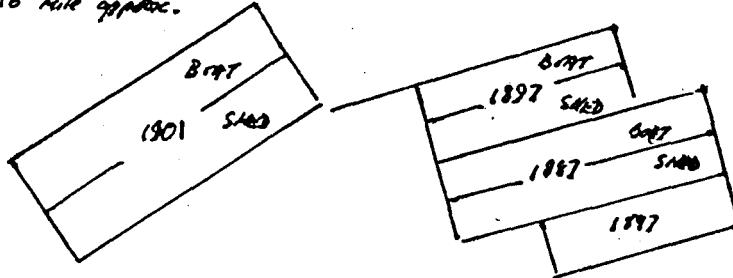
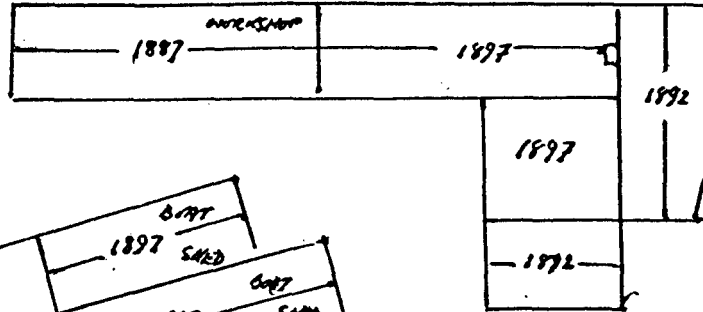
FIG. 1

CANAL IRON WORKS

THE SITE 1882-1901

Dates indicate year first noted.

SCALE 175 inches to mile approx.



THAMES & SEVERN CANAL

LOCK

TOWPATH

