

The Story of the
Silent, Smokeless, Steam Launch
that needs no Stoker or Engineer



The Lune Valley
Engineering Co., Ltd.
Lancaster, England.

A Word with the Reader

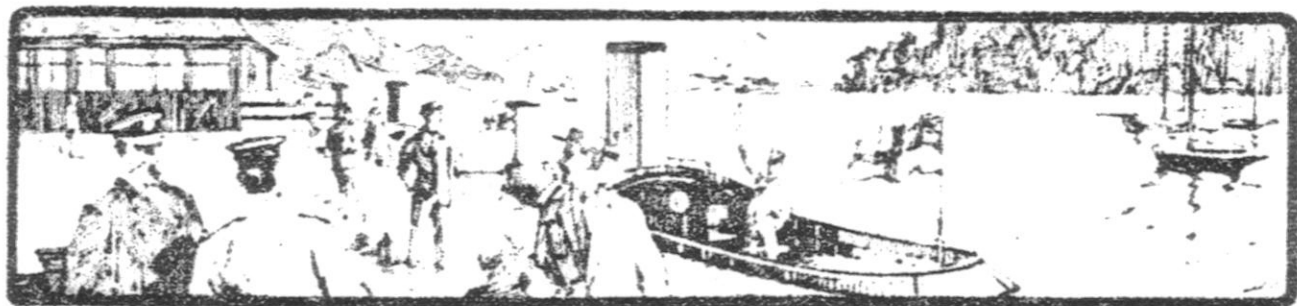
To the uninitiated, there is little interest in reading a highly technical catalogue; the text—so lucid to the man who wrote it—gives little information, and much confusion, to the layman who wishes to buy an Engineering product.

Because of this, but mainly because 75 % of our Clients limit their Engineering experience to the manipulation of Lune Valley Launches—a simple matter quite—we have been prompted to tell our story in a way that will not bore, that will, perhaps, give pleasure as well as interest in the reading, the while keeping in view the fact that our mission is to sell Lune Valley Launches.

For the man who revels in case hardening, turnings from the solid, cubical contents, logarithms, and so forth, we have another catalogue much to his liking. We will gladly send it on request.

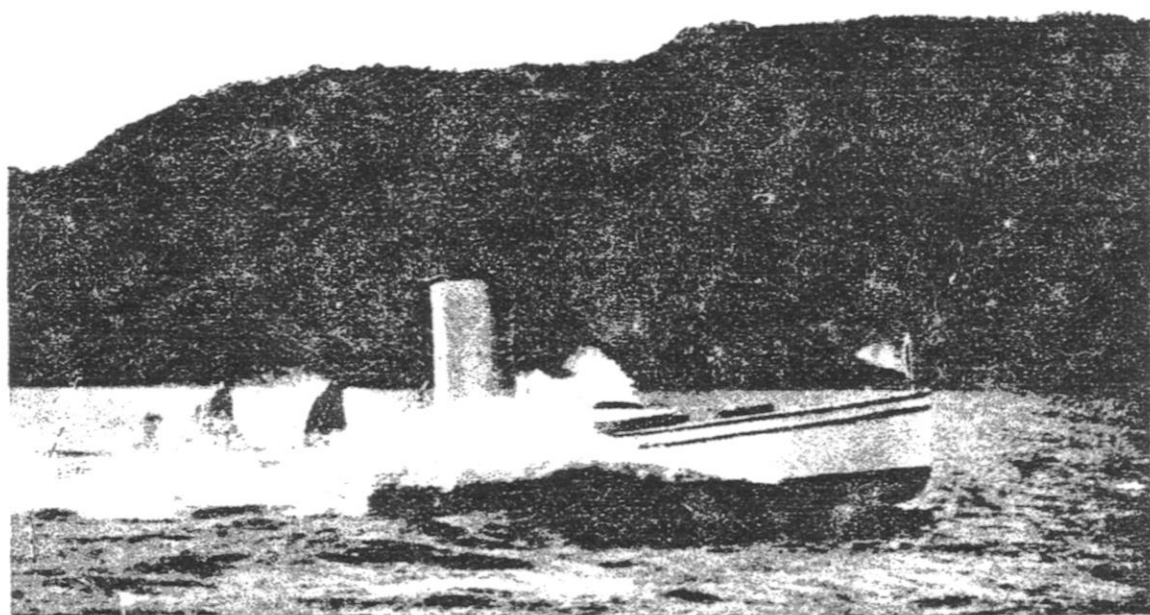
THE
Lune Valley Engineering Co. Ltd.

Wheatfield Street, Lancaster, England.

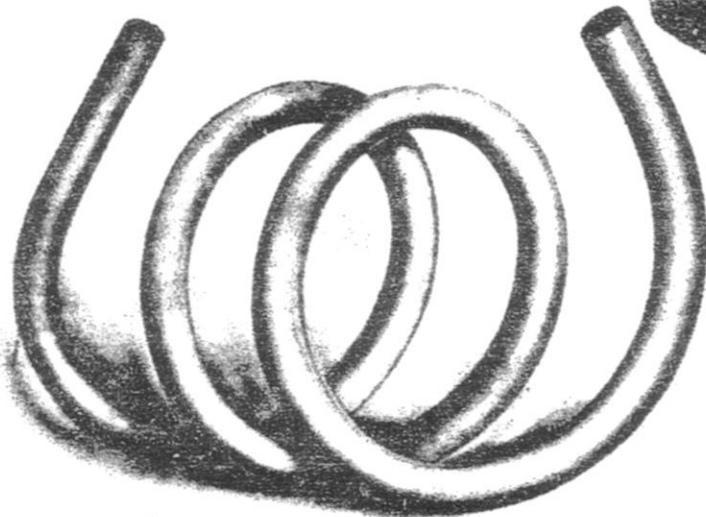
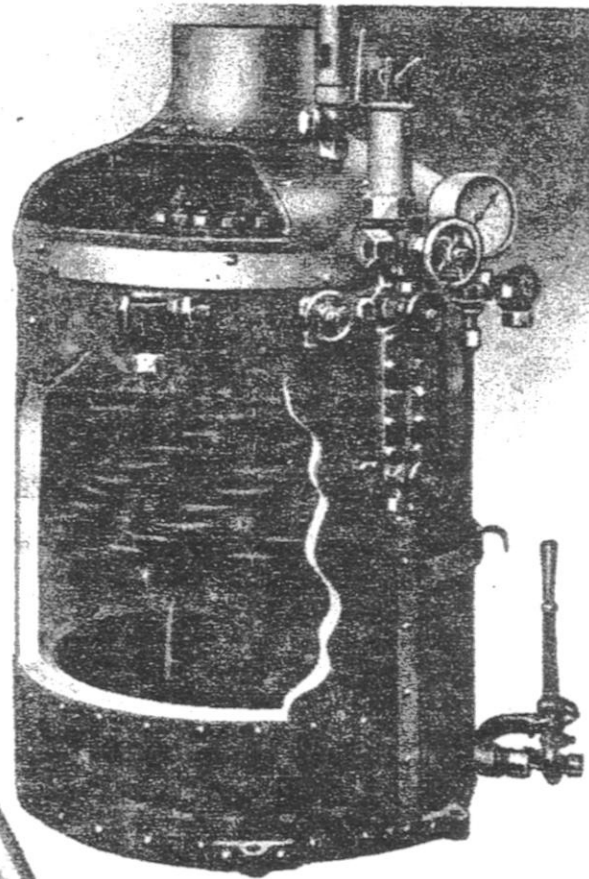


No stoking, no dirt or ashes, no flying grease: no smell of rancid oil, no sound of fife and kettledrum: no need to be an engineer nor yet to look like one; no necessity to "force" steam with coal and paraffin and cotton waste, and wait two hours for a starting "head"; no sparking plugs to break or short circuit; no carburettor to "tease" or clean; no petrol tank for water to leak into; no starting handle to bark your shins and skin your knuckles with a back-fire; no valves to grind with "elbow-grease" and crocus powder; no carbon to chip away; no smelly exhaust and leaking compression; no uncertainties, delays, disappointments, or bad language.

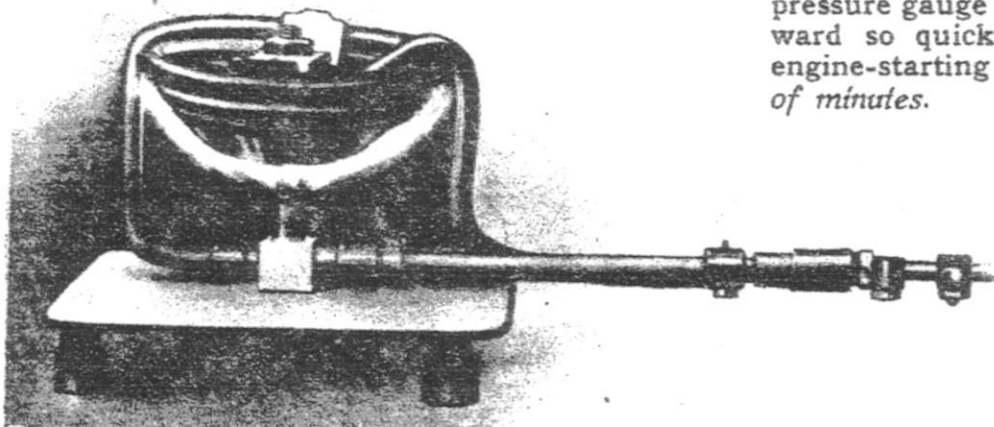
Just one pull of a lever and striking a match; a pause of three minutes and then another pull of that same lever, and then a wait of from two to nine minutes, according to your engine's horse-power, and your indicator tells you to turn on steam, your engine starts its rhythmic purr, and your moorings slip quietly behind.



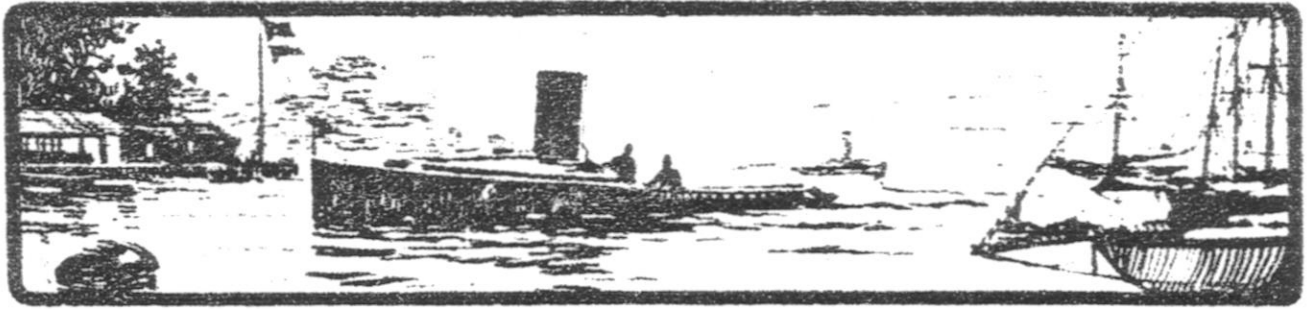
The smaller boilers have single sheet steel casing, asbestos lined; in the larger ones, the casing is double, with a lining of silicate cotton. Every boiler is fitted with Screw Stop Valve, Safety Valve, Feed Check Valve, Blow-off Cock, "Klinger" Water Gauge and Steam Pressure Gauge. This illustration shows the Boiler "with the lid off." Look inside! At the base you have the paraffin burner which sends its intensely hot smokeless flame in and around every square inch of those cunningly arranged coils, each of which consist of numberless separate spirals —



And this shows the Spiral. It is quite short, of best mild steel. The number used varies according to the boiler's size. The diagonal fitting ensures perfect utilisation of all heat generated—



by the Patent Paraffin Burner. It is shown with the pilot light in action—in a minute or so, when the dome shaped spiral is warmed through, a pull of the lever (shown in boiler illustration) puts the pressure gauge indicator forward so quickly that your engine-starting is a matter of minutes.



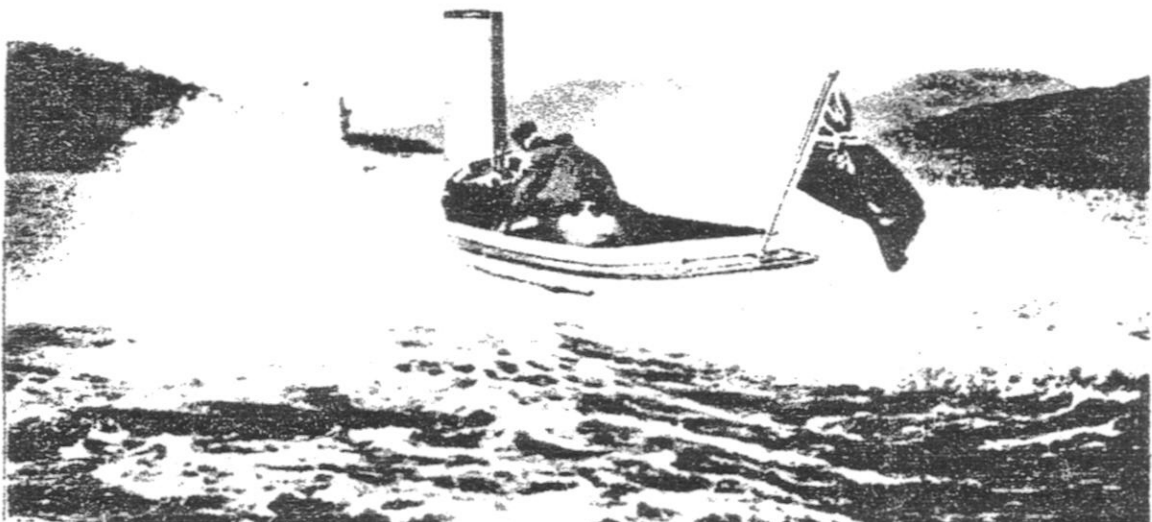
Full steam from "all cold" in five minutes if you run a 6 h.p. launch, twelve minutes if it be a 140 h.p. racer—with three movements only, without soiling your hands.

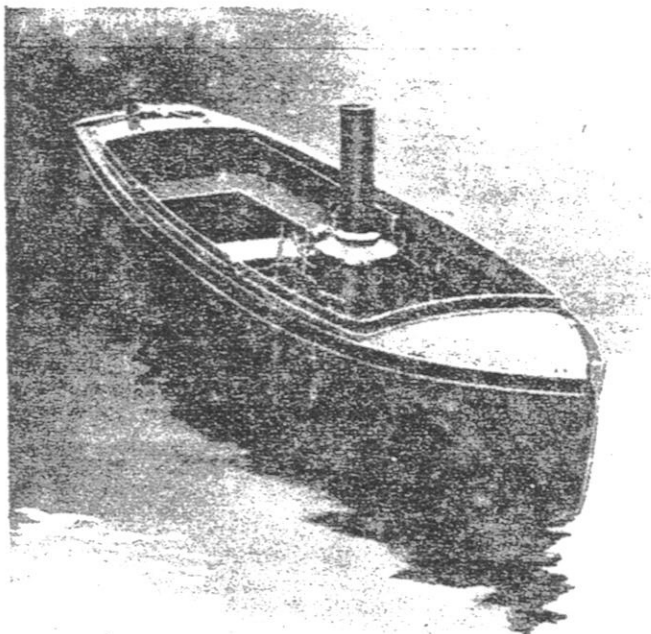
In a nutshell, **THAT** is the Lune Valley story.

How such a method of engineering small steam craft has been evolved, we need not say; you will be able to recognise the years of thought and work and effort embodied in every Lune Valley Set.

For the time being, we will leave the engine and discuss the power that drives it. For raising steam, we have dispensed with solid fuel and its attendant evils. Paraffin is our fuel—"Rocklight," "Daylight," Kerosene, or common household paraffin.

The paraffin is stored in a tank, long and narrow to fit snugly to the launch's side; it feeds our Patent Burner, which page three illustrates. The fuel from the supply pipe passes through a spiral with gradually widening coils, from the top of which it falls to the jet beneath the dome-shaped spiral. Inside the jet, a needle works up and down actuated by the hand lever. *This is the only working part.* A momentary release of the lever allows a jet of paraffin to escape into the tray. Movement number one. You light this paraffin. Movement number two. This initial burning warms the burner coils, evaporates the contained but unreleased paraffin, and your third movement—opening the valve again—creates an intensely hot, white, smokeless flame directly beneath the heating surface of the Lune Valley Patent Water-tube Boiler which is illustrated on the same page.





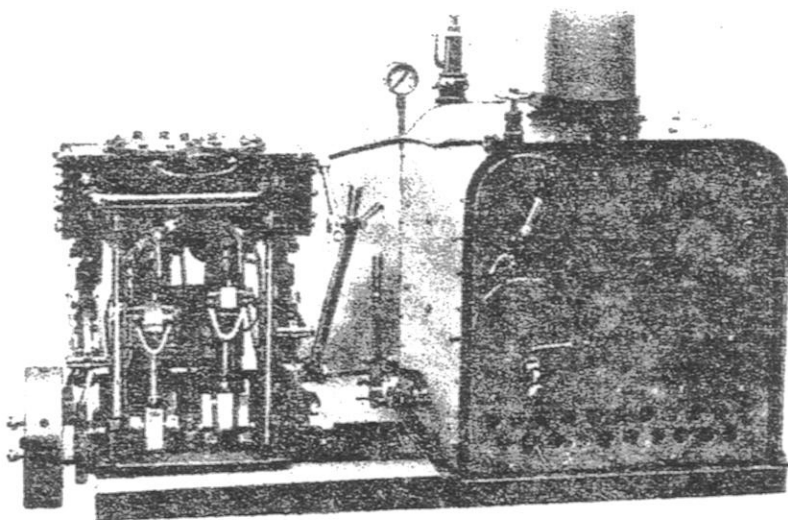
A HANDY LITTLE SEA LAUNCH.

22 ft. \times 5 ft. 3 in.
8 h.p. Motor

Speed 9 miles per
hour.

THE SMALLEST LUNE VALLEY SET.

6 I.H.P. compound steam
motor. Nett Weight: 370
lbs. Shipping Weight: 672
lbs. Area: 38 cubic ft.
Space occupied fore and
aft: 3 ft. 6 in.



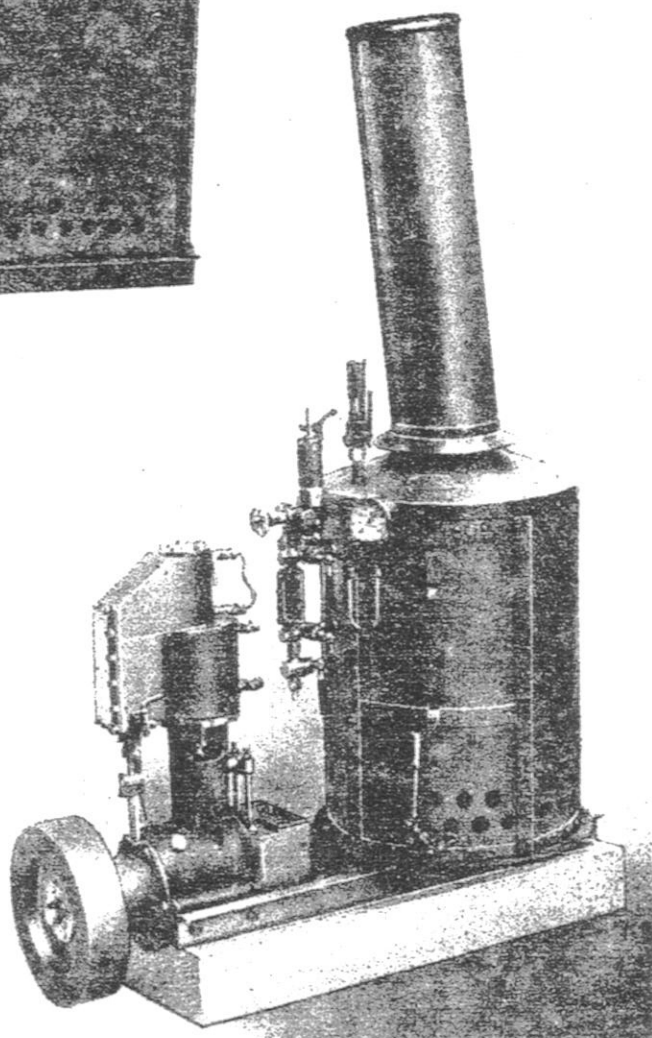
A COMPACT SET.

A tandem type with
the H.P. cylinder placed
above the low pressure.

6/8 h.p. on the single crank,
oil fired water-tube boiler.

6 h.p. Shipping Weight:
10 cwt. Measurement: 33
cubic ft.

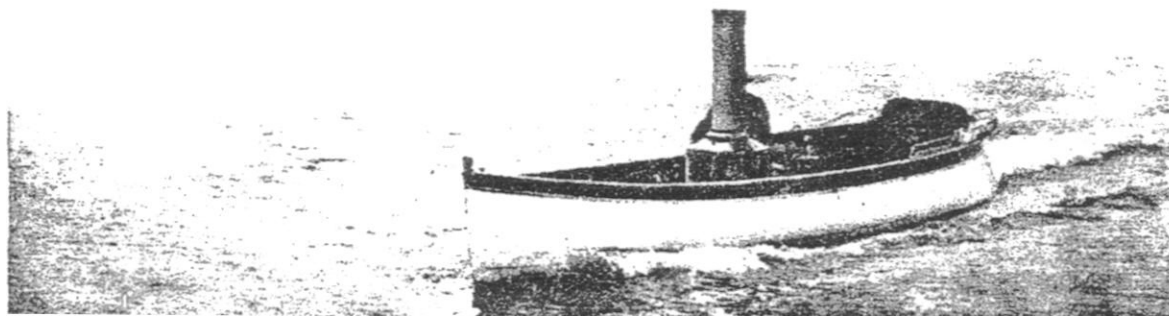
8 h.p. Shipping Weight:
11 cwt. Measurement: 36
cubic ft. Weight: 440 lbs.
Space taken up in boat, fore
and aft, 3 ft. 6 in.





The Boiler consists of an inner shell of quite small dimensions, pressed by hydraulic power from a flat steel plate until it resembles an earthenware bread mug, with solid bottom and an open top with edges flanged over by pressure. The sides are drilled with mathematical exactness, and the drilled holes receive the water tubes. The method of fixing the tubes is simple, yet the most effective and reliable that Engineering Science knows. Each tube-end is expanded *from the inside*, leaving $\frac{1}{2}$ in. of projecting tube. The expansion makes a watertight joint without brazing or any other method of fixing—in other words, the circumference of the tube *exactly* coincides with the hole which receives it, and the projecting end of the tube is *turned over* on to the inside of the boiler shell, giving the tube-end the appearance of a hollow rivet. You have now a joint *which is watertight*, fixed in such a way that on a bursting test—about 10,000lbs. pressure to the square inch—the tube itself *would burst before its mooring end could leave the boiler wall*.

And now for the tubes ! A glance at the boiler illustration on page three suggests that each of the spiral coils started at the bottom of the shell and continued in a series of twists until it made a final connection with the shell at the top. That would not be good engineering principle ; what actually happens is, each of those spirals is made of *separate and distinct coils* of three turns each, both ends of which are fitted in the boiler shell, expanded to fit the hole *exactly*, and turned over on the inside to give the rivet lock which will never loosen until you want it to. This gives a shorter and more rapid circulation and consequently *quicker*—much quicker—heating. And each separate coil is independent of the others ; by inserting a metal plug in its connecting terminals you can *cut out* that part of the circulating surface without affecting any of the other heating area.



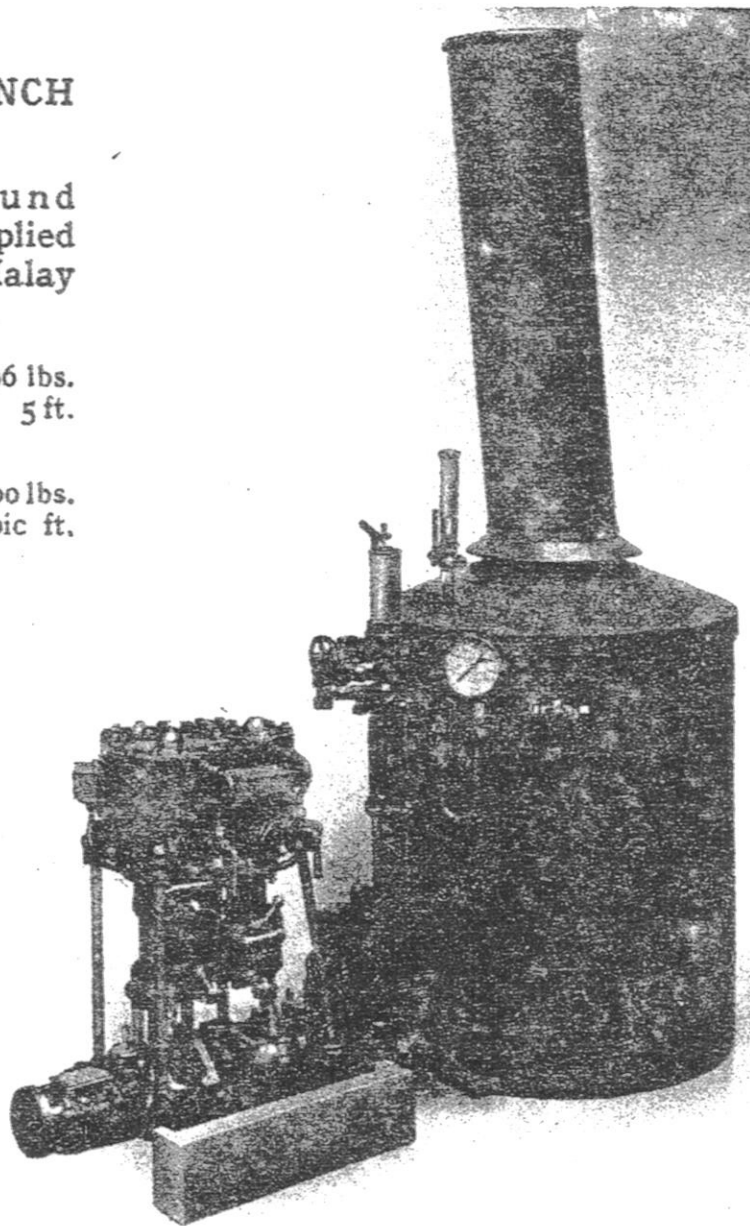
A COMPACT LAUNCH SET.

20 h.p. Compound
Steam Motor as supplied
to the Federated Malay
States Government.

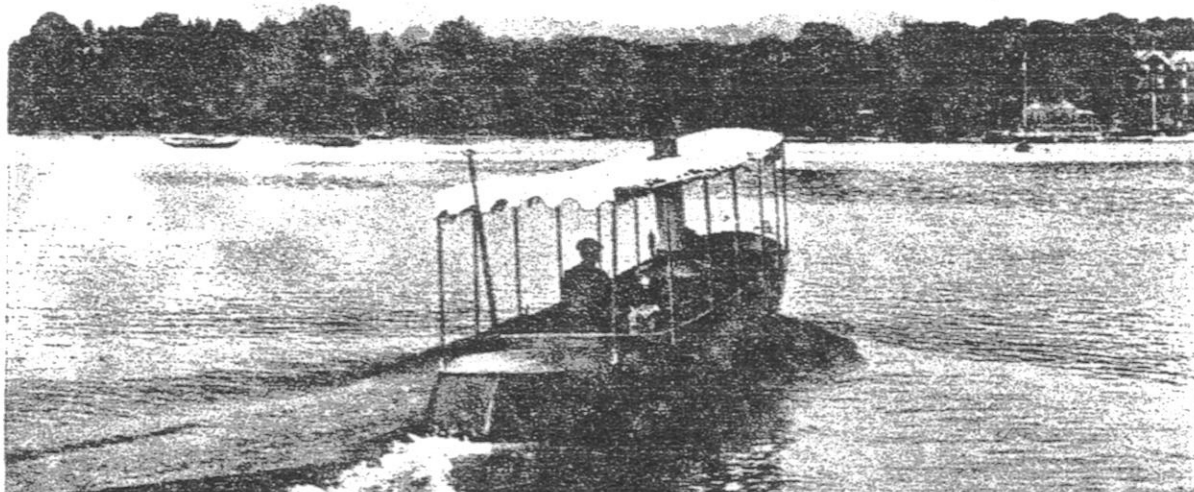
Weight 896 lbs.
Space occupied in Boat 5 ft.
(fore and aft)

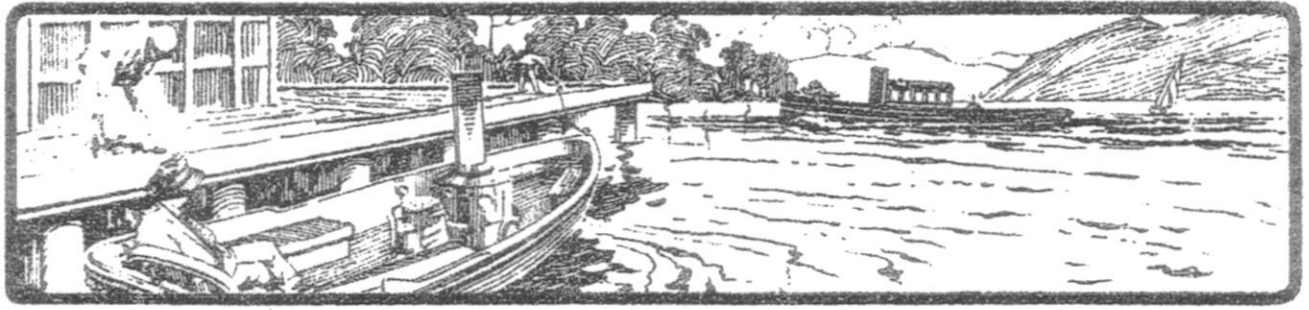
Shipping weight .. 1300 lbs.
Measurement: 70 cubic ft.

The same engine is
made in all sizes
from 20 h.p. to
90 h.p.



The above engine is seen (below) fitted into a 36 ft. Fast
River Launch. The 20 h.p. Motor fitted to a craft of this
type and size develops a speed of 12 miles per hour.





This Patent Lune Valley method of steam generation not only gives wonderful speed in steam raising, but absolute safety. Lune Valley Water-tube Boilers are safe even in the hands of a native servant whose only experience of steam has been the boiling of a stew-pan.

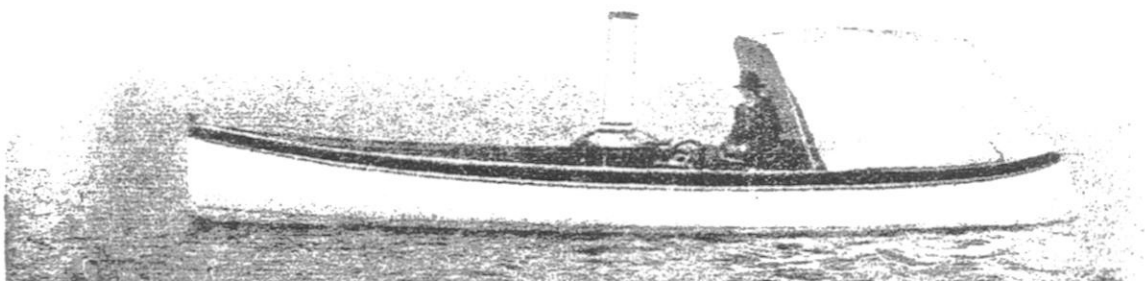
To satisfy ourselves on this point, we have emptied the boiler—drained away every drop of water—lit the pilot light, put the burner “full on,” and kept it there until the boiler was *red hot*. Then cold water was admitted. The boiler did not suffer, neither did we, for, as we have said, Lune Valley Water-tube Boilers are safe—they cannot burst by sudden steam generation.

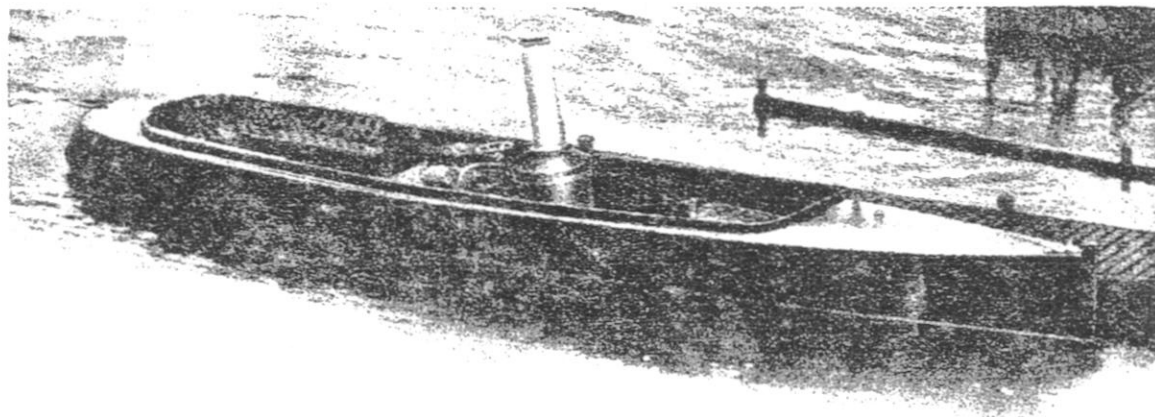
If, through sheer intention, one half of the coils were burned away, the Lune Valley Patent Water-tube Boiler would still be effective, though naturally its steam generation would be less rapid.

The diagonal arrangement of coils allows easy cleaning ; to pass a brush through them from end to end is a matter of moments, though, owing to perfect fuel combustion, there is little carbon formation, and cleaning is only necessary at rare intervals.

Lune Valley Engines are just as thorough, just as reliable, just as well thought out, as Lune Valley Boilers and Burners.

We make a big range of standard type engines from the handy little 6 h.p. compound motor for small open river launches to the 140 h.p. 4-crank quadruple expansion Engine as fitted to the racing launch “Satanella,” illustrated on the front and back covers of this booklet, and giving a speed of 23 miles per hour. We also design and build intermediate sizes according to the needs of individual Clients.





35 ft. RIVER LAUNCH, "OPAL."

Fitted with 20 h.p. machinery as illustrated on page 7.

Speed 11 miles per hour.

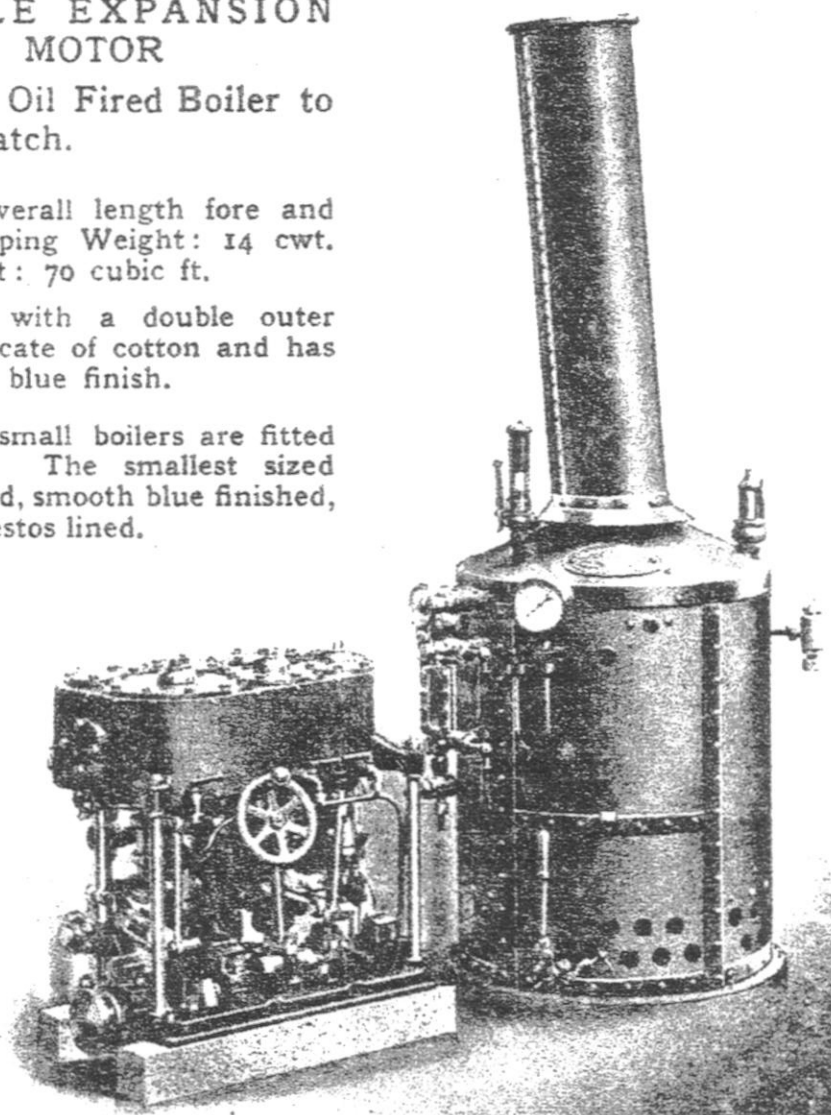
18 H.P. TRIPLE EXPANSION STEAM MOTOR

with Water-tube, Oil Fired Boiler to
match.

Weight: 784 lbs. Overall length fore and
aft: 4 ft. 6 in. Shipping Weight: 14 cwt.
Measurement: 70 cubic ft.

The boiler is fitted with a double outer
casing lined with silicate of cotton and has
a smooth blue finish.

All except the very small boilers are fitted
as described above. The smallest sized
boilers are single-cased, smooth blue finished,
and asbestos lined.



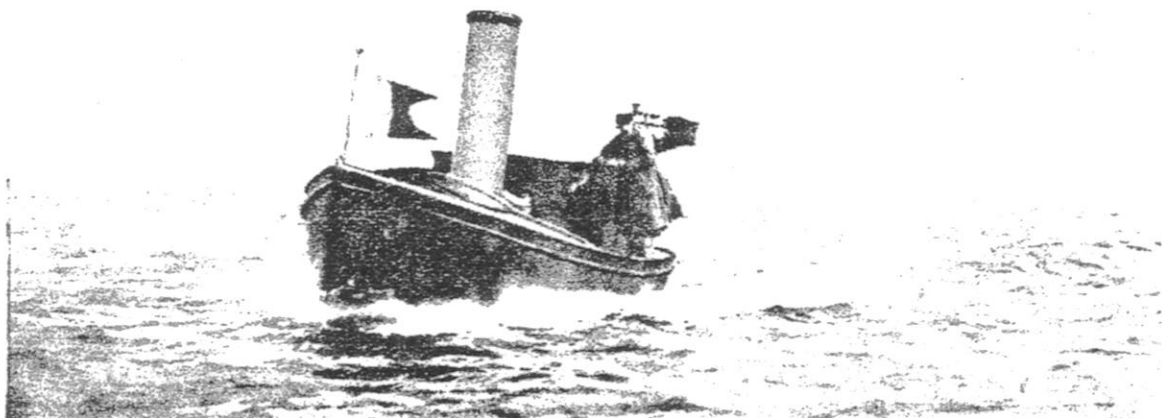


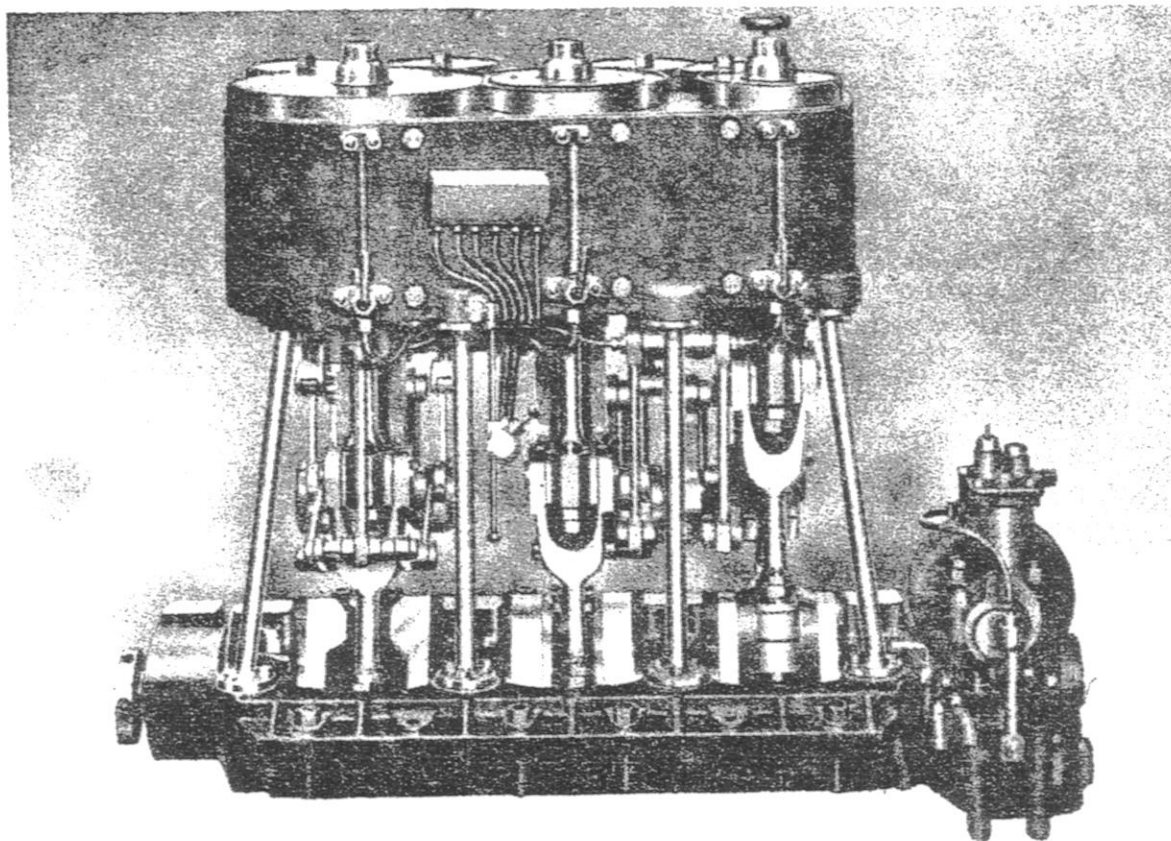
Many powers and styles of Lune Valley Engines are illustrated in this booklet ; the high-grade finish is indicated, and their compactness is a noticeable feature. In fact, they take up less room, including boiler, and weigh no more than a petrol motor of the same horse-power.

Lune Valley Launch Sets are almost automatic. The method of steam generation has been dealt with earlier, and presuming that the steam indicator shows sufficient pressure, all you need do to start *is to open the throttle*. After that, practically no attention is required. The steam, having expanded in the various cylinders, is automatically condensed and pumped back into the boiler ; and lubrication is effected by drip feeds, efficiently arranged, which do their work so well that beyond the filling of the drip boxes no supervision is needed. In the enclosed types even this is not necessary, as the lubrication is completely automatic.

The engine speed can be governed by the throttle, but many of our Clients prefer to regulate it by the burner. It is so easy to increase or decrease the strength of the flame by a slight movement of the lever that the pressure you need, to maintain the speed you want, can be fixed without difficulty. Moreover, this saves fuel.

There's something about a well-made steam engine which appeals to even the man who has had no engineering training. Its almost silence—just that rhythmic purr ; its quick response to the need for more power, or less, or reverse ; its regularity ; its reliability—all these qualities endow it with a something far above the steel and bronze and iron of which it is composed.





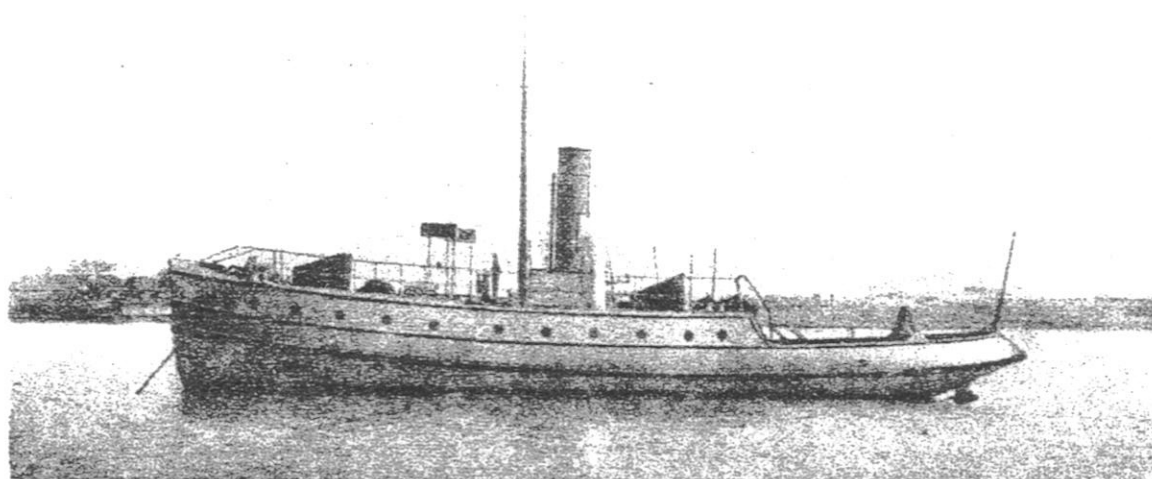
AN ENGINE THAT LOOKS LIKE BUSINESS.

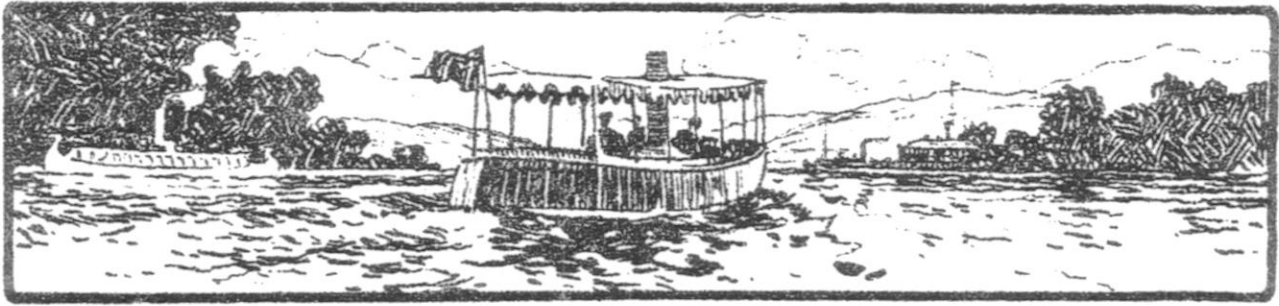
Triple expansion, 65 h.p., drip-feed lubrication.

Weight with suitable boiler: 3,360 lbs. Space occupied in boat, fore and aft, 8 ft. Shipping Weight: 42 cwt. Measurement: 160 cubic ft.

S.Y. WOLF.

65 ft. x 12 ft., fitted with 130 h.p. steam motor Set, supplied by the Lune Valley Engineering Co. for Sea and River work at Rangoon, India.

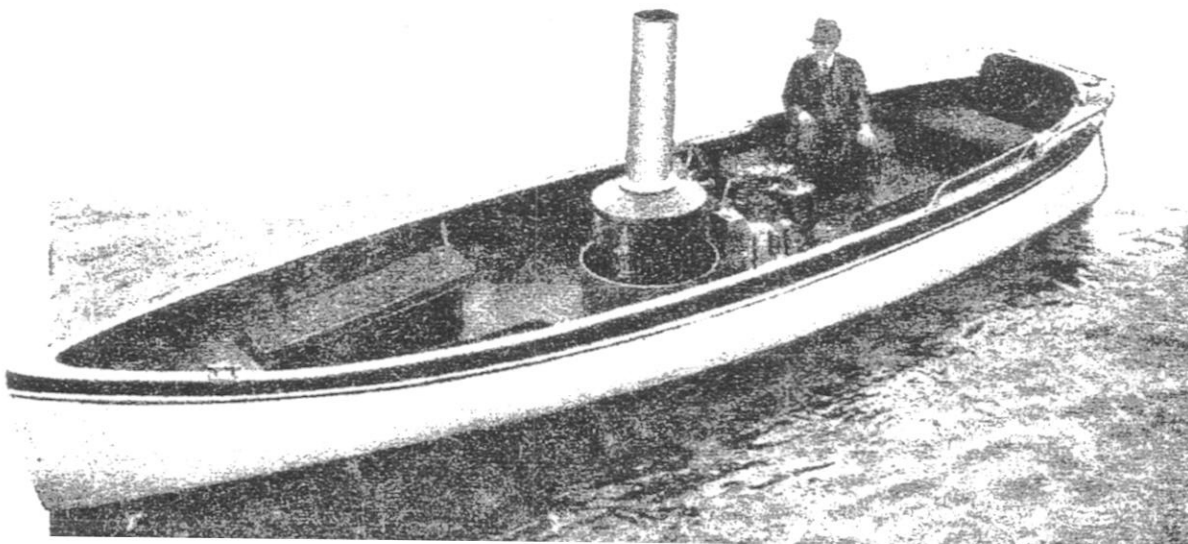


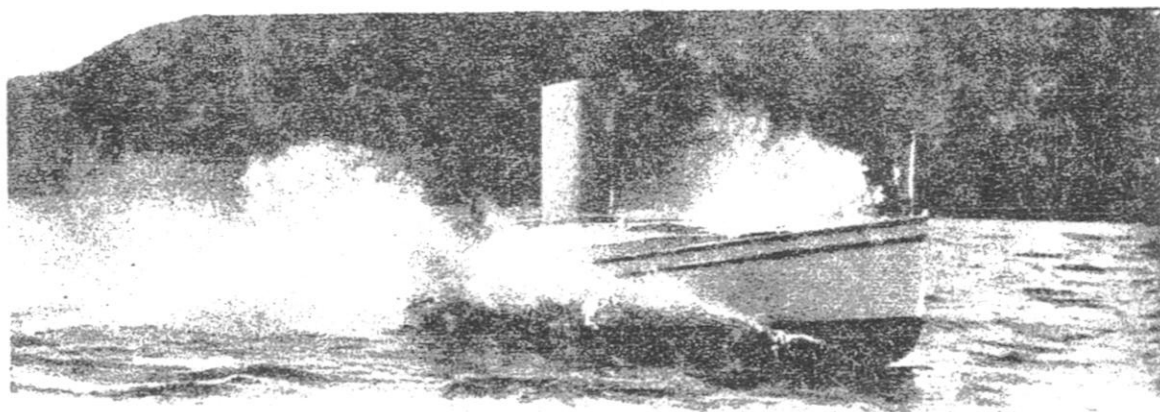


A good steam engine has qualities almost human ; it does its work without supervision far more regularly than we humans do, and it makes no errors of judgment. It answers "full speed ahead," "stand by," "half speed astern," according to your order ; propels its craft faithfully over sunlit waters and through shower and storm, working harder, stronger, as the need grows greater.

And this is where the biggest difference occurs between the steam and the internal-combustion engine. The latter gets its power from its speed, and if anything occurs to cause the motor speed to fall below its normal rate of running, the full power ceases to develop, and it will gradually fade away to nothing unless something be done to help the speed to reach the normal rate.

People who know Lune Valley Engines say they cannot understand why a launch owner should think of using any other power than steam. One says that his engine-room is as clean as his drawing-room ; another says that he marvels at the difference *in power and speed* of his Engine over the petrol motor of the same horse-power owned by his friend ; and generally speaking, we have become so used to Clients saying kind things about Lune Valley Launch Sets that we accept the compliments as a matter of course—though with thanks, nevertheless.





S.Y. SATANELLA.

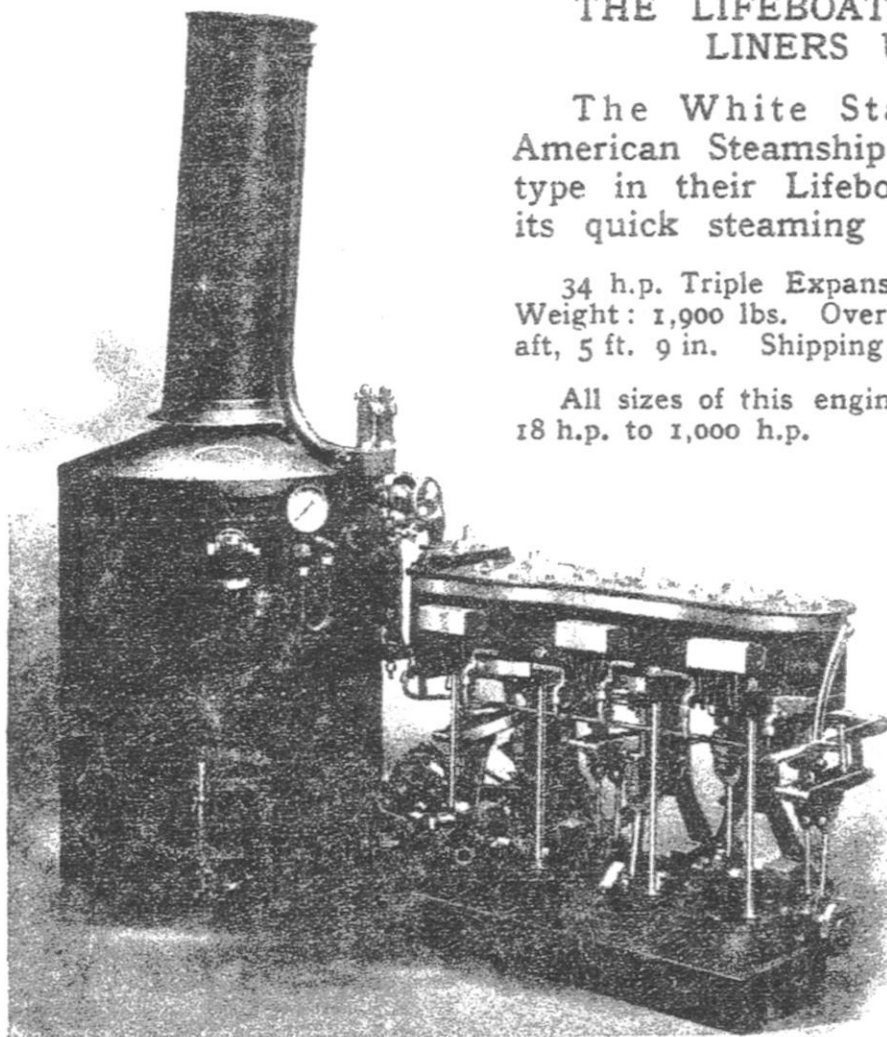
Showing a turn of speed on Lake Windermere. 38 ft. long by 6 ft. beam, engined with 140 h.p. 4-crank Quadruple Expansion Lune Valley Steam Motor, it cuts through the water at the rate of 23 miles per hour. And the Lune Valley System enables this speed craft to raise full steam from *all cold* in 12 minutes.

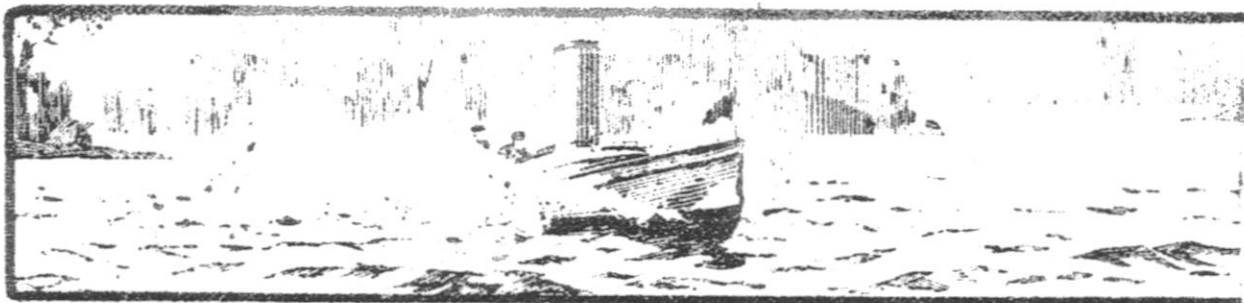
THE LIFEBOAT-SET THE LINERS USE.

The White Star Line and American Steamship Lines fit this type in their Lifeboats because of its quick steaming and reliability.

34 h.p. Triple Expansion Steam Motor. Weight: 1,900 lbs. Overall length, fore and aft, 5 ft. 9 in. Shipping weight 2,800 lbs.

All sizes of this engine are made from 18 h.p. to 1,000 h.p.





We supply our Patent Paraffin Burners, Patent Water-tube Boilers, and Launch Engines complete in the Set ready for fitting into *your* boat ; or the Set complete ready fitted into *our* boat ; or we can sell each separately—the Burner, the Boiler, the Engine, or the Boat, as you wish. For the convenience of foreign and colonial buyers, we supply drawings to enable the boats to be built abroad.

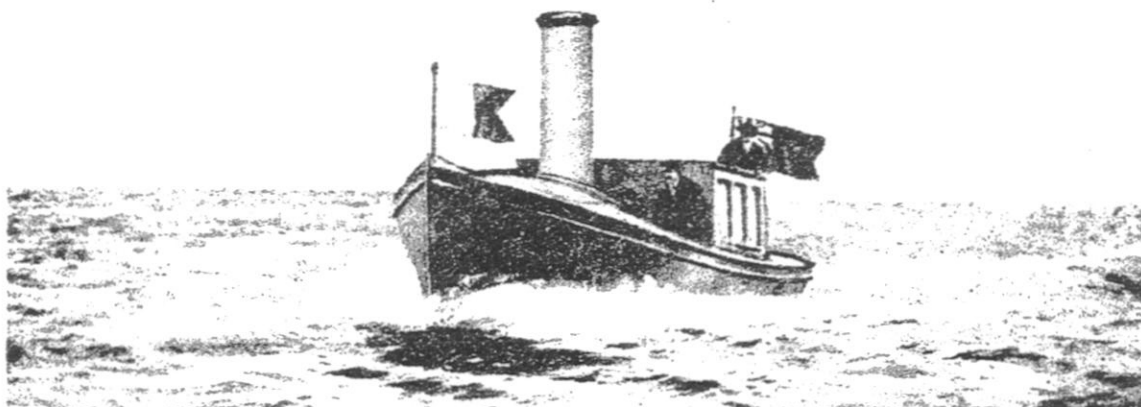
One point above all else which has helped to place Lune Valley Launches on all navigable water wherever the Flag flies, is the deference we feel to the word "Reserve."

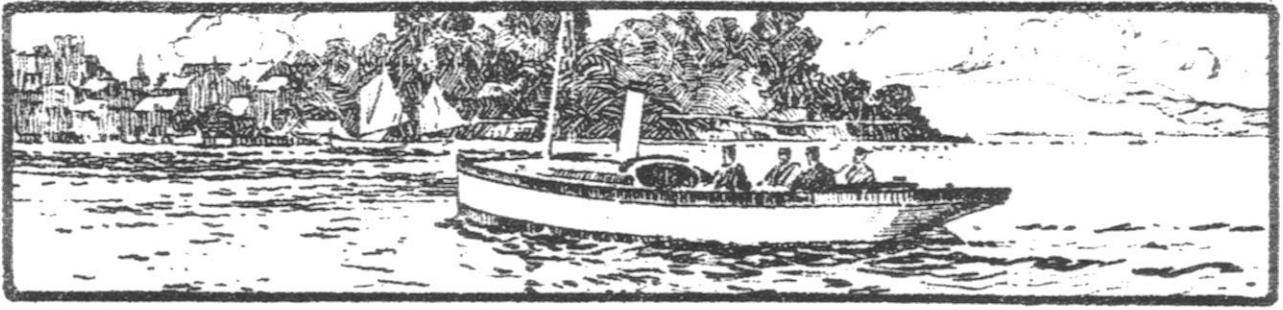
Every part of a Lune Valley Launch has something in reserve—is better and stronger than it need be.

The Boiler works at 250lbs. pressure to the square inch. The Insurance Company tests it at 500lbs. pressure. We say it must stand 1,000lbs. pressure before it is reliable enough for a Lune Valley Set. *There's a big reserve of safety.*

The Engine is never *less*, always more, than its indicated horse-power ; that is why the Lune Valley Engine invariably does better work than any of equal listed horse-power, whether of petrol or steam. *There's a reserve of power also.*

We never fit a Boiler to an Engine without leaving ample reserve. With a Lune Valley Launch, you can go "all-out" with the throttle wide and still be able to blow your steam whistle ; because, with the burner full on, every Lune Valley





Boiler generates *more* steam than the Engine which it supplies can use for the power listed. *So there's a big reserve of steam too.*

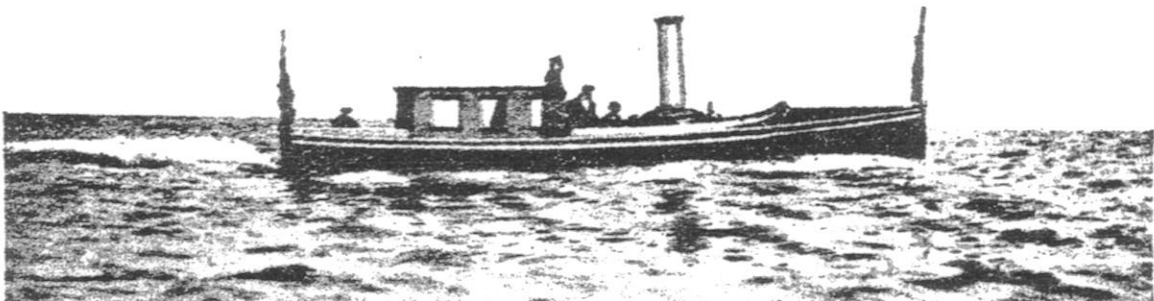
And in every way this principle of "Reserve" is applied. Bearings are wider than they need be, connecting rods are stronger, copper tubes thicker, gears cleaner cut, balance weights more correctly adjusted ; just because we want to have a reserve in hand when we say that Lune Valley Launches are more silent, more efficient, more reliable, more cleanly, and more satisfactory all round than any other type of Launch—Steam, Petrol, or Electric—that we know of.

You may drive a Launch for Sporting purposes ; for Commerce, Pleasure, or Speed. You may live on the shores of the Great Lakes of Canada or in a Trading Station up the Amazon or the Niger ; by the smiling waterways of the Homeland or on the outposts of Empire, hundreds of miles from civilisation and repair shops.

Whatever your need may be, wherever you are, we can either meet your requirements from stock, or design and build to suit you.

We have sent Lune Valley Launches all over the world ; they have been bought by men of every occupation (as well as Engineers) for every purpose for which a launch can be used.

In your locality, at home or abroad, if there is a Lune Valley Launch, you will hear the story of its thoroughness, wonderful reserve, and utter dependability if you talk to the man who owns it.





A HANDY CRAFT FOR RIVER OR SEA.

23 ft. Launch fitted with 10 h.p. steam motor which develops a speed of 9-10 miles per hour.

FAVOURED BY THE BRITISH ADMIRALTY.

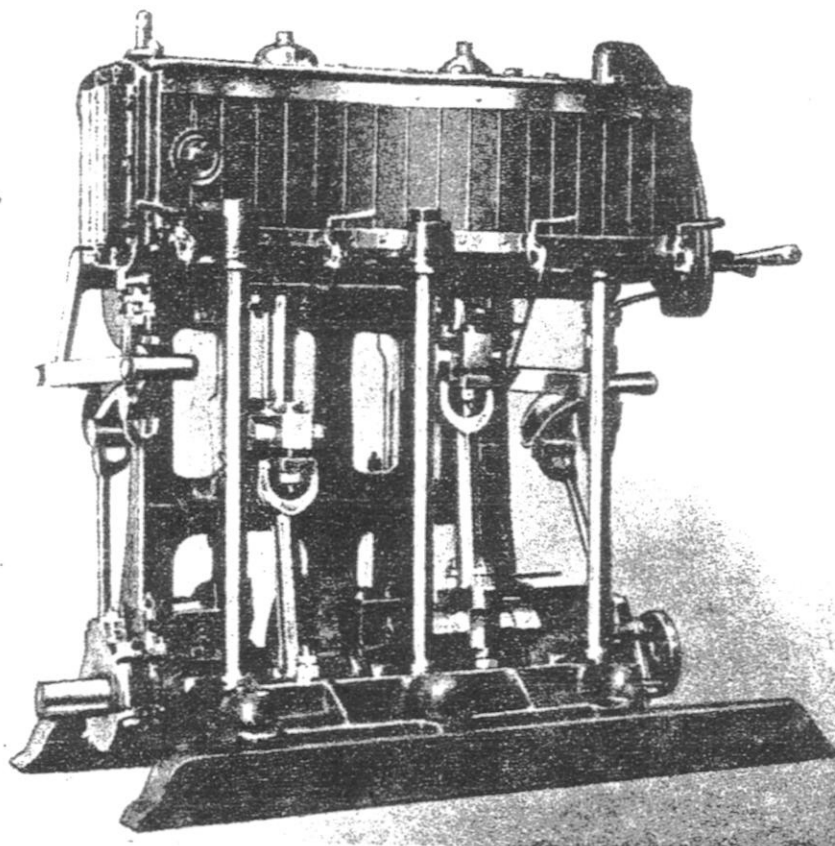
2-crank Compound 30 h.p. Launch Engine as used in Admiralty Pinnaces.

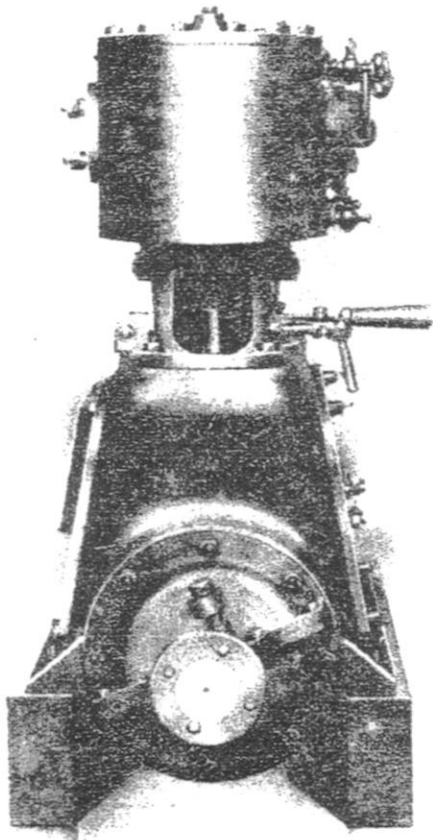
Space in boat, fore and aft, 7 ft.

Shipping Weight :
27 cwt.

Measurement :
222 cubic ft.

Weight : 2,400 lbs.

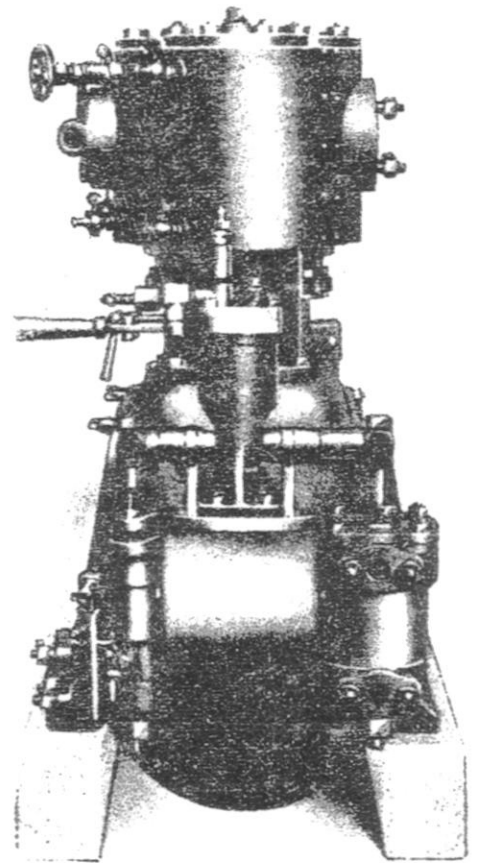




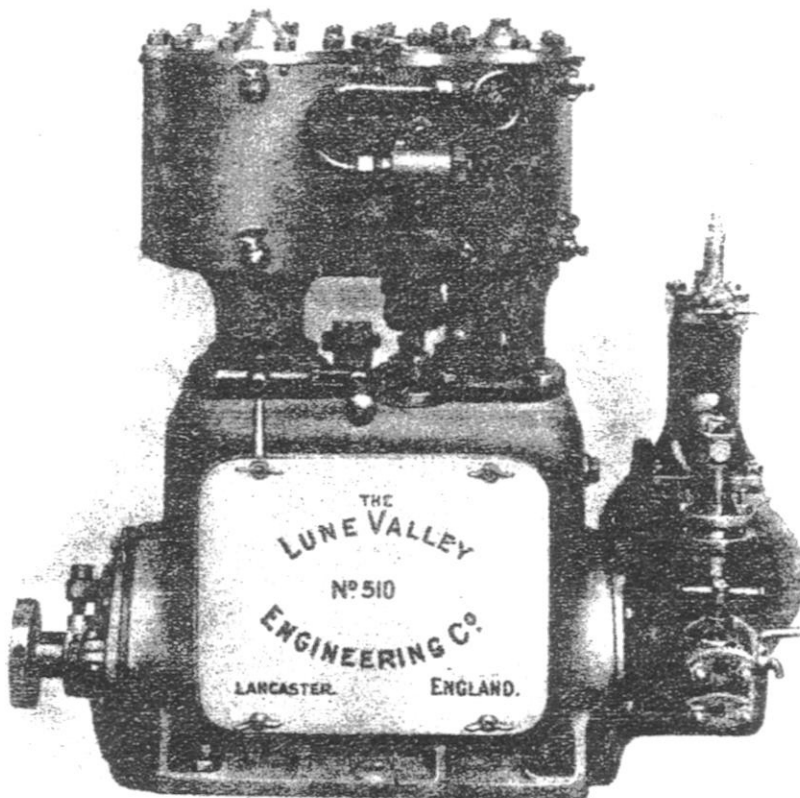
Rear view showing
the propeller end.

25 h.p. Com-
pound Steam
Motor with
ENCLOSED
CRANKS &
Automatic
Lubrication.

Space re-
quired in
Boat, fore
and aft, 5 ft.



Front view facing
the boiler,



*Side view.
In each view,
it will be
observed
that the
cranks are
completely
enclosed.*

Silent, cleanly, and requiring very little attention of any kind.

Weight, with suitable boiler, 920 lbs. Shipping Weight, 1480 lbs.;
Measurement, 70 cubic feet.

What Owners say, etc.—continued.

Another Client writes :—

I am pleased to say the Burner was a great success. Get steam from cold water in nine minutes. It has made that little launch worth £50 more.

Fayrer Holme, Windermere.

. After two years' use of this boiler I can confidently recommend your system, as I find it free from the disadvantages existing usually with steam machinery, in so far as I am able to get away with full steam in less than ten minutes with reliability and a perfectly clean boat.

(Signed) W. J. CLARK.

From another Client :—

The installation of the engine and boiler was completed in very short time, and the yacht started on her 850-mile voyage to Quebec thirty-six hours after she had been put into the water for the first time, I understand, and yet nothing could have been more satisfactory than the behaviour of the machinery.

(Note.—The above set was a 70 I.H.P. 2-crank quadruple engine and was installed in a 65ft. yacht.)

Aarkejm, Ytre Rendalen.

. The launch arrived here safely and has been running on the lake daily for the last month, and has never given a moment's trouble.

The engine runs perfectly and does the work required of it with never a murmur.

(Signed) C. GRANT-DALTON.

Wadebridge, N. Cornwall.

. Our Engine-room is a Drawing-room compared to last year with the ash and coal dust, &c. Last year the firehole door was open at least every ten minutes, now it's only a few strokes with the air-pump and application of the oil-feeder occasionally. Why people buy petrol motor launches when they can get Lune Valley Boilers I can't think.

(Signed) RICHARD HOWARD.

Later.

Convena, Wadebridge, Cornwall.

I have taken the engines and boiler out of my launch for winter overhaul. When I opened it up I found everything all right, and the only operation necessary was the removal of about a teacupful of soot that had accumulated on the tubes. The boiler has behaved perfectly, and the boat is much more comfortable, speed steadier, and engine-room much cleaner than with the old coal-fired boiler.

(Signed) R. HOWARD.

Ash Lodge, Radcliffe-on-Trent, Notts.

The boat came off the water this week after the most successful summer's running I ever had. Taking as a whole I am more than satisfied with change from petrol motor in last year.

(Signed) E. M. GREEN.

65, London Wall, London, E.C.

I may say we had a most successful cruise to Scotland and back. As you know, the engine and boiler are installed in the ladies' cabin, and even when the engine is running there is not the slightest smell of paraffin or lubricating oil.

(Signed) G. A. TAWSE.

CONTRACTORS TO THE ADMIRALTY
ON WAR OFFICE LIST.

CONTRACTORS TO THE CROWN AGENTS
FOR THE COLONIES.
ON ITALIAN ADMIRALTY LIST.

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