# No. 2 Mine Sweeping With the M. L's (Motor Launches) By A SEA SLUG

British Service Name For Crows of Submarine Chasers.
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PROLOGUE.

The author of this series of four arti-cles is a young American, who has spent most of his time since the war started with the British patrol fleet, taking an important part in helping to organize that branch of the service known as the Sea Sluge.

collection of anecdotes incident to this exciting branch of the service, and many of these were personal advantures in which he took part and which make one of the stirring narratives to come out of the war. He recently returned to the United States to assist the American navy in organising the same branch of the service and should same branch of the scruice and should be of great value because of his experi-ence abroad. So far as known, he is the only American to serve with the British patrol prior to the advent of the United States destroyer fiville in British po-ters. Of course some of his experiences, of military value to the enemy, cannot be related. At the request of the service publication of his name is withheld.

MAX HORTON, the man who top MAX HORTON, the man who toepedoed the German battle cruiser Moltke, was one of the most
modest men I have ever met. I palled
around for a couple of nights with
Horton and another Sea Slug who had
been only a short time out of the
Hasda hospital, where he had recovered from wounds he received at Gallipoil. Horton, besides being the hero
of the Moltke incident when in command of an E boat, had been the first
man through the Dardanelles in his
filmsy M. L., as the British call the
submarine chasers, he being in that
service before taking over a submarine.

M. L. stand for motor launch. The little craft are called a great many other things at times, both by the men in them when they don't run just right and by submarine commanders, German and British.

We were all at Portsmouth, which is one of the principal M. L. bases. Horton, his friend and myself had been

out on a duty tour and on the way back stopped at The Kunt for a couple of drinks, then at Monk's for oysters and finally landed at Tot's for dinner, which is about the program followed by the Sea Slugs when they can get

"They had the M. L's sweeping mines down at Gallipoli," said Horton in a very matter of fact way. "Lots do is to cruise around and keep from drowning, but I want to tell you that chasing submarines is the easiest and safest thing expected of us.
"Tugboats and trawlers and mine

sweepers weren't much good in the Dardanelles, because they furnished too big a target. Besides, everything that could float was getting shot to pieces, and before they dared send our ships in it was absolutely necessary to sweep the mine fields.

"We used to hook thousand foot ca bles between two M. L.'s and cruise down through the fields as fast as we could go. The cables were supposed to foul the mines, tip them over and explode them. They did it. Also the M. L.'s themselves tipped over several mines and exploded them, and after that there wasn't anything to hook that end of the cable to.

## Work Under Point Blank Fire.

"The Turkish batteries on the cliffs were so close that as we drove down through the mine fields we were at point blank range. The ammunition wasn't so very good, and it didn't always explode on contact, but if ever one of the heavy shells smash through a chaser there wasn't much of anything left but the hole it made on the way through-like a doughnut after you eat it.

"Of course the Turk guns firing into the fields detonated a lot of their own mines, but that didn't add to our com-fort any, for many of them were right under some of the M. L.'s.

"One day we were sweeping in near shore. The sun was so hot that pitch just seemed to sweat out and run down the decks. The glare off the water was almost blinding, and it really didn't seem as if it could be much better in the other place to which we might go if one of those shells hit us. The Turkish batteries were hammering away at us, but the terrific heat was so uncomfortable that nobody minded the shells much. All of a sudden something went by my stomach so close I thought it had cut me in two. Just beyond my boat a shell splashed into the water.

"One of the smaller projectiles had grazed and seared me. I caved in so that I couldn't walk straight or erect for several days and that is literally true. My stomach felt all the time as if some one was drawing a red bot knife across it."

"I got it worse than that," said the other chap, who had been in the hea-

a. I don't know how it is to get but when that thing blew up a alongside of us it folt to use as gh it was my own body expleding, seemed like a sudden and terrific sure from the inside of me that going to burst me like a toy bal-

"We finally got back to the tender under our own power. We had to shore up the bows a little, but we managed to make it. Mines do freakish things, and I don't believe there is a man living who can give any logical reason why we weren't blown into atoms."

"Plain luck, I guess," observed Horton placidly. "It's funny that a mine powerful enough to sink an ocean liner or a battleship will sometimes explode and fail to destroy a motor launch or a submarine that is almost alongside it. A lot of people think submarines are very easily put out of business. We Sea Slugs know it's different, especially the U boats. I saw one of our own down at Gallipoli which had hit a mine and came in with her bow patched up under her own power, just as you did in your chaser. you did in your chaser

#### Sixteen Dead In Launch.

"I never had the bad luck to bump a mine myself, but I've had my share of being shot up. I had one end of a of being ahot up. I had one end of a cable in a mine sweeping stunt at the Dardanelles one night when the Turkish batteries got the range. The fire they poured into us is almost unbelievable. I don't see how a stick lived through it. We were practically under water all the time, the shells were falling so close and spraying us so steading

"Every once in awhile one came on oard, but they were not exploding ight—that is, not right from the Turk-

right—that is, not right from the Turkish point of view. We were perfectly
satisfied to have them fail to go off.
"The other chap, though, the fellow
who had the far end of my cable, was
getting it pretty badly. He was in
terrible shape, and after a particularly icious burst of fire his engines stop o him. We couldn't sweep with only one end of the cable in motion.

"Of the eighteen men in the other M. L. I found two alive. They weren't conscious, but they were still alive. The sixteen others were dead. We took these two abcard our launch and got back to the base. That night was hell."

I have quoted the stories told me by these two men as nearly in their words as I can remember them to show a phase of the submarine chasers' work which is seldom thought of. As Hor-ton said, most people think the Mt L's do nothing but cruise around in comparative safety looking for aubmarines. This is only one of their duties.

This is only one of their duties.

Most of the Sea Slugs have been taught to operate machine guns, and as a result they were frequently used for landing parties at Gallipoli, running in under the Turkish guns and trying to hang on, by their finger nails almost, to the cliffs. Some of the Sea Slugs were on shore for a long time and served in the trenches. One of them told me a bad feature of the fighting there were trying to keep clean. There there was trying to keep clean. There wasn't water enough to drink, to say nothing about washing, and the only way they could clean their shirts was to lay them on the ant hills. Even at that if they left them there too long the shirts themselves would disappear there was boarding all the fishing smacks and other apparently noncombatant vessels and searching them for ammunition and mines. I talked to one man named D., a brother of the officer I told about in my first article who rammed one of his own submarines, mistaking her for a German, who had a fight with two Turk seroplanes while he was visiting a numb of such vessels.

## Fought Planes With Rifles.

"We are just running over to a fishng smack to search her," said D. when I bear the throbbing of an aero



Bangi Goes One Not Thirty Feet Of My Rtarboard Bow.

plane engine. A few seconds later th roar of another engine cuts in, and presently 1 locate them with my glasses. It never occurs to me that they are after such small fry as my lit-tle M. L.

"Round and round they circle just over our heads, getting lower and low-er all the time, until at last they start dropping boinbs.

"Baug! goes one not thirty feet of my starboard bow, and we are sprayed with the foam she throws up. But the target is too small, and the planes are traveling so fast they can't get us with bombs, so they veer off and come as one does going under a doorwa that is actually high enough to wal through upright, but which looks to

"Suddenly they begin to spray us with machine gun fire. Two of my men are hit, and the decks are flying into splinters. All I have on board is a couple of 30-30 rifles, and I begin firing with one, while my first officer uses the other. The three pounder can't be elevated enough to use it as an air gun.

"We can shoot rapidly, but nothi like the fire of that cursed spew of lead spraying from those machine

and now they are coming back. If we don't stop them this time we are gone. I squint along the sights of my rifle. I take a deep breath. I let part of it out and hold the rest, so that my shoulder will not be moving as I squeeze

the trigger.

"I am sighting right for the pilot's chest. I fire. He veers off like a wounded bird. His plane wabbles. It looks as if it was going to fall, but he gets it straightened out and files away. Both of us begin to fire at the other machine. It rises. The pilot does not dare to fly straight into the rifle fire. From aloft he contents himself with dropping more bombs, but he must be within range of our rifles, for presently he files away and does not bother us any more.

any more. "Te he had been a German air man the end of the story might have been different."

#### Sea Slugs Are Fighters.

The crews which officer and man the submarine chasers are not trained navy men. They don't know overmuch of the king's regulations, and the discipline they maintain is most cer-tainly not that to which one is accused on board ship.

But-and I want to emphasize this strongly—they are scrappers. They fight in their own way. They may the book, but they are among the gamest men affoat. Many of them are wealthy and formerly owned and operated their own boats. They are a hard fighting, hard riding crew, and the devil himself can't scare them.

Before they are assigned to boats the men are given about a ten day sometimes cruise out of sight of land and at night. Many amusing and some-times almost tragic incidents arise rom their inexperience.

I was out once in an M. L. commanded by a subaltern named C. All he knew about navigation had been taught him in ten days. He got lost, was ashamed to say so and admit that he didn't know how to get his location. He figured for two days trying to find out where he was. He'd get his sun observations, and by the time he had the readings calculated be'd be so far away that he had to do it all over

He figured for two days, and all the time he was getting shorter in provi-sions and fuel. For the last half day he followed a destroyer, thinking she was running into port. He wouldn't signal her and ask for instructions or for his location, so he just trailed along

The sun was under clouds, but it came out just before sunset, and he discovered that be had been running right away from England. - We got back off Portsmouth at night. But our signal box had been lost overside, and we couldn't reply to the signal at the eptrance to the harbor, which came within inches of costing us our lives, as our own batteries fired a couple of 4.7s at us, and we had to run out and cruise around the rest of the night to save our skins. However, we hung in sight of the barbor so as not to get lost again.

This same chap, though he was short on the science of navigation, was long on fight. When cruising at night the M. L's, of course, show no lights, and it is very bard to maintain an absolutely even speed and keep just the proper distance from the other craft.

Steam engines can be controlled right

down to the lnch, but the gas engines which drive the M. L.'s are not so readily regulated. A single notch increas or decrease on the throttle may make difference of a whole knot in speed. Well, C. lost track of the other chasers in his squadron one night, and he didn't dare signal to them. They were out searching for submarines, and to show lights would only give the whole thing away. He couldn't take a chance on sending up a rocket or tooting his whistle, for secrecy is everything. So he just laid a course the way he thought he ought to steer and kept it

up hell bent all night.

Just after daylight he discovered that he was off the Belgian coast, having crossed the channel. As the early morning mist lifted he sighted a big vessel astern flying the German flag. She didn't look like a regular warship-more like a converted yacht-but she mounted one gun forward, and C.

He had a regulation three inch piece

"Well, boys," he said to his crew, we may be rotten navigators, but we don't need to know navigation to give that tub a fight. What do you say?"

There was only about one chance in a hundred that any of them would come out of the scrap alive, and C. didn't like to order his men into it. The M. L. was so fast she could have run, but the crew was game, so C. put about and began to loop around in order to cross her bows, thinking to cut loose a few raking abots into the

are, and C. was only waiting for what he thought was the best position before giving the order to shoot. "We ought to fly our flag if we're go-ing into battle," suggested some one in

"By Jove, you're right," C. agre and in a jiffy the British ensign y oun up at the M. L.'s stern.

run up at the M. L's stern.

Like a shot the German flag at the stern of the war vessel came down, and the Union Jack took its place. Simultaneously from the masthead the stranger broke out a private British navy signal, and C. replied.

He had come within an ace of firing into one of his own vessels which had been flying the German flag in order to decoy any German creft that might

ecoy any German craft that might



He Sighted a Big Vessel Astern Flyin

sight her. It shows, though, that the Sea Slugs are ready to go into action any time and that they don't have to have the odds in their favor either.

A Matter of Luck.

As I said before, the catching of a submarine and its destruction is great-ly a matter of luck. Sometimes the M. L.'s cruise around for days without seeing one, and then perhaps a U boat will pop to the surface within a couple of hundred yards. The most impor-tant adjunct to luck is an all seeing eye. One never knows where the periscope is going to stick out above the surface, and you must be ready at any

Just how many submarines were "got" while I was in England I am not at liberty to say, but I can go on record as stating that they are not easy to get, and the captives are fewer than generally supposed. A vast number of units are necessary to combat them with any degree of success. Besides being invisible almost at will, the submarines are manned by men of

The idea prevalent among some people that submarine crews are more or less only sueaks, who strike in the themselves, should be dispelled. The fear death not at all and who some after her as though he knew where he British develop one trick that bags a times take staggering chances. If the success. News of English ruses spreads rapidly in the under water gos-

U boats have run in a few scantmiles from shore and sunk all sorts of craft, and they have even tackled destroyers. The British had some very sad experiences in sending destroyers on rescue work, after which they used the M. L.'s for this purpose. These make smaller torpedo targets. The Germans are supposed not to risk U boats unduly; but, believe me, they do.

I talked with the chief engineer and one of the crew of a British sugar ship from the West Indies who had been rescued after being torpedoed.

"We were just making Havre," said the engineer, "and we were mighty glad to get in. The day was remarkably clear, and the water was olly oth. We were so close to land we didn't think there was a chance of anything attacking us when just at 1 o'clock in the afternoon a submarine appeared off our port bow and signaled us to stop.
"We were armed with a 4.7 gun on

our stern and had navy gunners on board, so instead of obeying we turned sharply to starboard to present as small a target as possible for a torpedo

and opened fire. "The first two shots fell short, and the third went over the U boat. The way some people talk you would have expected the submarine to run away. She didn't do anything of the kind. She opened up on us with a gun that must have been at least a three inch piece, and the second shot hit one of our gun mounts.

"One man disappeared—actually disappeared. Either he was knocked into the sea and sank, or he must have been literally blown to pieces. Another poor fellow was killed—just about torn in two—and two other men were put out cold. The captain had to stop then, because there was nothing left to fight with.

"We were so near port that the firing must have been heard, and it was al-most certain something would come out to investigate, but the U boat went about finishing the job very method-

ically.
"The German commander ordered us 'The German commander of the chief engineer, myself, to come alongside the U boat. The first thing he d'd was to have our wounde brought aboard, and his surgeon a tended to them. Then he used or

nont to send men over and piace bombs in the ship te blow her up.

"As the day was drawing to a close, it was becoming colder, and, seeing that the mea had not brought coats with them, the German commander gave us all sweaters and towed us toward shore for half an hour or so. Three destroyers passed out, but they were so far away that the U boat simply submerged until she was awash, and they never saw a thing. It was almost sunset when she finally disappeared after maneuvering around as though playing like a porpoise at sunset almost within range of shore batteries."

The story of this armed merchant-man shows that simply placing guns on steamships is not going to protect them against submarines. There has got to be a sort of craft to fight them on something like equal terms, and the swift, seaworthy, low lying M. L.'s seem to be the ones to do it. But great numbers of them are needed, and great numbers of trained men are needed to operate them.

Song of the Sea Slugs.

The Sea Slugs in England sing s song which pretty well covers every-thing in the line of their life and duty. Some of the verses were written by one man, some by another. The one referring to Uncle Sam is my own nd will be understood when I say that the first M. L's were built in America and that the British took some time to learn just how to use

Sing me a song of a frail M. L. (Lord, have mercy upon us!)
Rolling about on an oily swell (Lord, have mercy upon us!)
Out on a highly explosive spree,
Petrol, lyddite and T. N. T.,
Looking for U boat 3 3 3.
(O Lord, have mercy upon us!)

Bing me a song of a bold young "loot" (Lord, have mercy upon us!), Skillful mariner and nut to boot, (Lord, have mercy upon us!)
So ship the cable and heave the lead, Hard a-starboard and full ahead. The detendance are in my hed. The detonators are in my bed. (Lord, have mercy upon us!)

Sing me a song of a smart young "sub"
(Lord, have mercy upon us!),
An insubordinate, half trained cub,
(Lord, have mercy upon us!)
Of the king's regulations I know not one.
I have left undone what I should have

done. But, ch, my aunt, when I fire that gun! (Lord, have mercy upon us!)

Sing me a song of C. M. B.

(Lord, have mercy upon usl),
Bred in a garage and sent to sea.
(Lord, have mercy upon usl),
Taken away from the motor trade,
Seasick and sorry, sore, dismayed,
But a h— of a nut on the "grand parade." (Lord, have mercy upon us!) Sing me a song of Uncle Sam

(Lord, have mercy upon us!) Nobody knows what they built them for. Every one prays that they'll build no But such are the horrors of "bloo (Lord, have mercy upon us!)

Sing me a song of a North sea base
(O Lord, have mercy upon us!),
A dirty, forgotten, one horse place.
(Lord, have mercy upon us!)
When the wind blows west, how brave

When the wind blows east, it's different, You'll find us safe in the "harbor bar."

As one may gather from the song. many of the Sea Slugs were formerly chauffeurs, and, although the M. L.'s is used, it is advisable to use an in-



inder Ordered Us

use gasoline for fuel, there is some difference between navigating one of them and an automobile.

Sitting Over a Volcano.

The "detonators under the bed" is literal. There isn't overmuch room on an M. L., and about the only place to keep the detonators is under the bunks. These little craft carry sufficient ex-plosives to blow up several first class warships, and if you want to know how it feels to sit over a volcano with the lid about to be blown off you want to ride in one of them, especially when somebody begins potting at you with shells that may blow up every ounce of ammunition you've got on board any

The third article of this series will appear soon. It is entitled No. 3.—A Motor Launch Raid on the Belgian Coast.



UTENSILS FOR FARM BUTTER

Shotgun Can Is Much Preferred to Crocks and Other Styles of Vessels Used.

(Prepared by the United States Depart-ment of Agriculture.) The following equipment is needed for butter making on the farm:

1. Milk Pails-They should be of the type commonly known as covered-top, should be heavily tinned, and have all seams flushed with solder so that they can be cleaned easily.

2. Cream Separator-Any make is satisfactory if it skims clean and can be thoroughly cleaned and sterilized. 3. Shotgun Cans-As a cream con-

tainer the style of can known as the "shotgun can" is much to be preferred to crocks and many other types of cans and pails commonly used. This can usually measures about 81/2 inches in dinmeter and 20 inches high. These cans are easily handled, covered, and cleaned.

4. Cream-Cooling Tank-Where there is an abundance of cold water any tank, properly used, will be effective. In very warm climates or where



Working the Butter.

cold water cannot be run through the tank several times daily, or where ice sulated tank.

5. Churn-The barrel type of churn is simple, inexpensive, easy to operate, and easily cleaned.

6. Butterworker-The lever and the table butterworkers are very satisfactory. The former is simpler and less expensive. When making large quantitles of butter a table worker or combined churn and worker is frequently

7. Thermometer-A floating dairy thermometer should be used.

8. Cream and Buttermilk Strainer-A strainer similar to a colander or a strainer dipper is frequently used for straining both the cream and butter-milk. A hair sleve is sometimes used as a buttermilk strainer because butter does not stick to it as it does to tinware.

9. Cream-Stirring Rod-A rod with a four or five-inch disk on one end is more effective in stirring cream than a spoon or other implement. Stirring rods should be well tinned and smooth so that they may be cleaned easily.

11. Wooden ladle.

12. Tin pails.

13. Half gallon tin dipper.

14. Hand butter printer. 15. Scrub Brush-A stiff fiber brush is preferable to one with soft bris-

## TAKING CARE OF SEPARATOR

Machine Should Be Cleaned Thoroughly Immediately After Each Time It is Used

(Prepared by the United States Department of Agriculture.)

Like all other milk utensils, the separator should be cleaned thoroughly immediately after each time it is used. Merely flushing the bowl with warm water after use and taking it apart for washing but once a day is a fithy practice and must be condemned. All parts of the separator bowl, together with the other tinware, should first be rinsed with lukewarm water, then thoroughly scrubbed with a brush in warm water in which washing powder has been dissolved. Soap or soap powder are liable to leave a soapy film on the utensils and should not be used, Soda ash or one of the commercial dairy cleansing powders is satisfac-tory, as either is easily rinsed off. The utensils should then be sterilized by means of the farm sterilizer or boiled for five minutes.