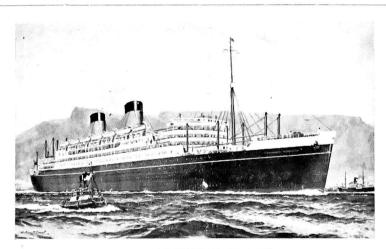


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WELLINGTON, N.Z., MAY, 1939.

QUARTERLY.



THE S.S. "DOMINION MONARCH." PIONEER OF A NEW IMPERIAL SHIPPING SERVICE, LINKING UP FOR THE FIRST TIME GREAT BRITAIN

WITH THREE OF HER DOMINIONS. SOUTH AFRICA, AUSTRALIA AND NEW ZEALAND.

The "Dominion Monarch" paid her first visit, after being launched on the Tyne, to these Dominions in April and left early in May for her return trip.

This picture shows her just leaving the Old Country for the Dominions. The route she takes is of prime importance to the Empire and in the event of war, would be used very frequently.

Actually it revives the history of a famous route always used in the days of windjammers and New Zealand will wish to see this track, pioneered by the "Dominion Monarch," become once more a highway of Empire.

ON DECK

Official Journal of the N.Z. Company of Master Mariners.

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Vol. 2

WELLINGTON, N.Z., MAY, 1939. QUARTERLY

Empire Filling Spaces
There is no doubt whatever that Britain in past years laid up for herself a problem the vital importance of which is only now being realised when she is face to face with the virile countries of East and West-Japan, Germany, Italy-all of which need land for their surplus and ever-growing population. The Empire continued to grow through the centuries and the Peace of Versailles added to her problems and her responsibilites by giving her mandates over large colonies formerly held by Germany and her Allies. These large accessions of territory were not accompanied by settlement which kept her foreign parts filled. The position was in many ways reminiscent of the great Roman Empire and this should have given her leaders cause to think more of the future than many of them did. It is certain that history will sooner or later be repeated and of this an English Church leader gave impressive warning some years ago. In early years of acquisition of territory men of the highest character, fired with the desire to give personal help to their country, went out to the new lands-real merchant adventurers-to uphold there the old tradition of the "nation of shopkeepers" whom in 1805 Napoleon blamed for his overthrow. They were, like the typical British merchant, men whose word was their bond and on this was built something that was trusted and admired by the native races of the territory acquired. Then came the industrial revolution and the making of fortunes which led inevitably to the period when huge loans were made to the countries of the globe. It was a new Empire altogether that developed after the Great War. There was not the close personal touch between its units. In place of the merchant who founded his branch establishments he lent out of his finance to the countries in far away parts. Thus has the spirit of the character of the Empire been completely changed. The position is put lucidly and well in the article entitled "Where Are the Merchant Adventurers of the Empire?" The question is one that is closely allied with the interests of merchant shipping. Probably the change brought about in the last mid-century was in some degree responsible for the decline in British shipping in comparison with that of her competitors. The writer of the article, taken from the "Monocle," 'makes out a very good case for the prosecution of a vigorous and unswerving campaign of migration. In that we firmly believe lies the salvation and continued existence indeed of the British Empire.

WELLINGTON NOTES.

A Committee meeting was held in the Dominion Farmers' Building at 7.45 p.m. on the 21st April. Captain S. Holm was in the chair and there were about 20 members present.

The location of the next annual dinner was discussed and it was decided to ask the Dunedin Branch if it would have it in their city.

The request from Auckland Branch that the fees collected in that port be kept for their own use after paying for the magazine was discussed and the matter was held over for discussion at the Annual Meeting.

It was pointed out that the editing of the Magazine was becoming a specialised job and it was agreed to accept the offer of Mr. Page to edit it for the next twelve months at an agreed figure.

It was resolved to advise the Defence League and the Navy Office that the Company of Master Mariners was willing to co-operate in defence measures to its fullest extent.

At the conclusion of the business an address was given by Dr. Simmers of the Meteorological Department.

THE LOG BOOK.

There are so many subjects of interest to sailors and to those of the public who rollow the fortunes of ships and the sea, that the editor hopes to see more correspondence in the columns of 'On Deck' with more original articles. Rarely, if ever, has there been an age when merchant shipping has been so vital to the nation. Articles dealing with present or past or opinions with regard to the future will always be welcomed.

The Solar System is such a vital part of the science of navigation that articles by an acknowledged authority are most valuable to Master Mariners. Mr. A. C. Gifford, M.A., F.R.A.S., formerly Science Master at Wellington College, contributed one with his compliments in last issue and the second and concluding article appears in this issue. These were originally published in the French Journal 'Scientia' of international fame, with editors in Paris, Bologna and London, and correspondents in Europe and Asia. A Press critique affirms that among its collaborators are the most illustrious savants of the whole world.

(By inadvertence the heading of article was made 'Polar' not Solar.) No doubt the former is of interest to sailors, but it hardly holds the same as the latter.

DOMINION MONARCH.

An event, noteworthy in the annals of New Zealand shipping, has been the initiation of a new service from the Old Country, linking up three Dominions and the Empire-South Africa, Australia, New Zealand. This is due to the enterprise of a Shipping Line whose proud boast it is that they go back a century to the very dawn of civilisation in New Zealand. With this is associated that era of sail which meant so great an influence to the Colony in its early days. These were wonderful boats and it is on record that one of them overhauled and passed a steamer of those days. It is estimated that she was doing about 15 knots. The incident was related by a retired skipper, now at Nelson, and a Wellington resident, both of whom were on the steamer.

MERCHANT SHIPPING.

In the February number was an article authoritative so far as one knows, dealing with the position of British Mercantile Marine, applauding the efforts made by the Government to rapidly improve the tally of sea borns carriers trading overseas and also the provision already made and to be made, for defence from raiders, by mounting of guns up to 4.7 inch.

The position is stated by some well-informed writers to be much less satisfactory than appears and, in recent issues of "Monocle," prominence is given to articles on the 'Merchant Adventurers of Empire,' that is, the 'Business Men of the Empire.' The author, J. D. McMillau, makes the claim that New Zealand Merchantmen are prepared "to do something about it" and ask the authorities in every part to do likewise.

It is good to know that within the past few weeks the decision has been made in all the Dominions to largely increase the standing forces while in Great Britain, universal training has come into operation. All through the Empire there has been a revival in defence matters. The Old Country is straining every nerve and putting forth her maximum effort and almost weekly new schemes are announced. Naval as well as military resources are being tapped.

Readers will be interested to study some of the ideas of the nation's leading men, which appear in this issue and will be continued later. Their opinions are so definite and backed by such strong argument and fact, that everyone should read and so make himself acquainted with the position of the Empire.

Where are the Merchant Adventurers of the Empire?

(By J. D. McMillan, from the "Monocle.")

Great Britain is facing some cold facts. The Dominions may soon be facing some colder facts, and New Zealand, in particular, may be facing the very coldest facts if we do not rouse ourselves so that in this new age the Merchant Adventurers of Empire may vigorously build and strengthen that which the Merchant Adventurers of England won.

In his book "Ordeal in England," Sir Philip Gibbs writes:—"It is in the minds of the English people—this dark shadow. It creeps into English gardens where there is beauty, and should be, if anywhere, a sense of peace. It sits like a spectre at dinner-tables where there is good company, and if one listens, as I do, one is conscious, very soon, of this ghost which haunts the minds of men and women who have been talking amusingly and light-heartedly until, inevitably—at least in the company I keep—the talk drifts, or lurches suddenly, into an argument which begins with fear and ends sometimes with a laugh in which despair is lurking.

"I do not exaggerate or over-dramatise. This dark shadow is caused by the dreadful apprehension that by some inescapable doom we are all marching, against our will, towards another war more frightful than the last —not the war to end war this time, but the war to end civilisation. That shadow lies brooding over our English scene and darkening all our hopes...."

That is sad for England.

Here are some extracts from Lord Lymington's book "Famine in England":—

"So far as we know, the most optimistic estimate of cereal food reserves in Britain is a three months' supply. It is improbable that we would have more than six weeks', and very likely that we would have only three weeks' cereal reserve. . . .

"We are building a new Navy rapidly. In five years

it will possess two-thirds of the relative strength in material that it possessed in 1914. But it still takes seven years to make a seaman. . . .

"In a few years we will have a first-class Air Force equal to any in the world.

"The Air Force cannot defend us at a distance away from home, but if they attempted to do so they would use up additional transport. The Air Force cannot defend shipping in the narrow seas at night or in dirty weather. The Navy, except by a miracle of a world combined against one great Power, could only defend our supplies in home waters. : . ."

This is very sad for England. It is very sad for the other Dominions, and very, very sad for New Zealand. For if Britain's sea communications were cut, England would starve and the Dominions might easily be conquered and their produce commandeered by any enemy. Of all the Dominions we depend most on Britain. Or am I too pessimistic? Is there some magic which would protect us? Perhaps I should add what Lord Lymington has to say regarding the "Emden" and submarines. He writes:—

"The German Navy , except for one Pacific Squadron which was soon destroyed, was encircled in the North Sea. Yet we had at one time less than seventeen days supply of food in the country. The 'Emden,' as a lone raider, required what to-day would be most of our cruiser force on the look-out for her in the Pacific. . . .

"Submarines to-day have a very long range for cruising, and they can be just as dangerous to our food supplies in the 'Doldrums' and the 'Roaring Forties' as in home waters. If our cruisers and destroyers hunt them, they can do so only by leaving the battle fleet unattended and the home waters naked to attack. To defend the trade routes in only one of the seven seas will be to leave the other six free for anyone's sport and pleasure. To-day the Pacific, from Easter Island to New Zealand, and from the Antarctic to Honolulu is patrolled by two cruisers and two small sloops...."

This is very disturbing, isn't it? If there were, say, ten "Emdens" and ten submarines loose in the Pacific, perhaps the Dominions would have no overseas trade. That, business men—Merchant Adventurers of Empire—would be a bad thing. "What," you say, "are the politicians doing about it?"

And what has Lord Lymington to say of oil? Here it is:-

"The oil fuel question is intimately bound up with the danger of famine in England, since the Navy and Air Force will have to concentrate on keeping open two essential types of supplies in far greater quantities than the one essential type, namely, foodstuffs, which were necessary in the last war. This does not mean to say that we will not need munitions, raw material and clothing from abroad, but by converting all our forces and many industrial concerns to reliance on oil fuel since 1918 we have vastly added to our task in keeping open lines of communications. We imported 12,000,000 tons of oil in 1936, as against 2,500,000 in 1914; even our merchant fleet is half-oil fired. This only includes the Navy's peace-time ration for oil, which is probably 10 per cent. of its war-time needs.

"The position of our sea routes may be considerably worse if we become embroiled with any major Mediterranean Power. Then the only safe route to the East must lie around the Cape of Good Hope; this means more oil and more shipping will be required.

"Thus we see that communications are more dangerous than at any time since the Battle of Trafalgar. But the need for open communications has increased literally a hundredfold since then. If our need for oil fuel and other vital imports to supply our home services and factories is so urgent, our home food position is equally desperate."

Then Lord Lymington unkindly says: "We have no choice but to decide that war to-day means famine, unless we take measures before it is too late. If we have not seen it, other Powers have, and the forces of disruption know it. A good dose of reality would not poison; but it would invigorate. While we are in a position to be starved we are inviting attack through those who wish to see chaos and from those who are land-hungry and look on our under-populated Empire as a heritage of which they are worthy and ourselves unworthy..."

Lord Lymington goes on to make a strong case for the establishment of adequate grain storage in Great Britain and for the development of British agriculture. In this latter connection he writes:—

"This chapter has shown that we have enough land to increase our cattle population by 60 per cent., our sheep and pig and poultry population by 100 per cent., and make ourselves self-contained.

"Much of this could be done in two years, all of it in ten years. . . ."

Think of it: in two years our New Zealand economy could receive a considerable shock; in ten it could be demoralised if England, fearful because of defence weakness, changed to a policy of self-sufficiency. That would be sad for us.

But, worse still—in war—in a day, a combination of Powers strong enough to keep our Fleet occupied, and with ten raiders on our sea routes, could split our Empire asunder and reduce Great Britain to starvation in a matter of weeks.

But let us turn to the Economic League. In at -cheerful pamphlet the following appears:—

DO YOU REALISE:-

That Britain to-day is living far beyond her income? That we are not a creditor but a debtor nation?

That by the end of 1938 our adverse trade balance may amount to £200,000,000?

That our invisible exports are decreasing? In 1937 British shipping supplied £130,000,000 under this head, but the number of our ships lying idle rose from 69, with a tonnage total of 74,796, on April 1, 1937, to 139, totalling 232,802, on the same day of 1938.

That at the same time our income from overseas investments is falling?

That there are only three countries in the world—Iceland, France and Greece—with whom we have a favourable balance of trade?

That in 1937 we bought from abroad meat, corn, fruit, vegetables, animal feeding stuffs and dairy products to the value of £258,000,000?

That our great adverse balance of trade is largely due to these imports of foodstuffs, although we could produce more food at home?

That it is estimated that British farms could supply foodstuffs to the value of £120,000,000 a year more than they do now?

Even though imports or foreign food were first curtailed, it would be sad for us if Britain went back to the land, and we just did nothing about it. You see the evidence, and the fear is mounting. One fears war and naval weakness and says "Back to the land." The other, seeing no outlet for British capital, says: "In this country to-day there are millions of money awaiting profitable investment. If some great financial corporation like an insurance company would only show courage and take a reasonable risk by sinking money in agricultural development, it could lead what Britain so vital's needs to-day, a 'Back to the Land' movement..."

Now, let us in the Dominions have a good look at Britain, Let us look because later we are going to endeavour to see what we intend to do about it. The groupings of the nation to-day suggest that two strong navies which were with us in the last war would be against us in a future war. It would be reasonable to expect that these two navies could supply ten "Emdens" to harass our trade routes. Their success would be Britain's starvation. To counteract such possible starvation, Lord Lymington suggests, in effect, that it is virtually useless for Great Britain to spend £1,500,000,000 on armaments if she does not spend a similar sum on oil reserves, grain reserves, and such agricultural development as will make her safe for at least a year.

But ,given all this, what does Sir Philip Gibbs say of air defence and gas attack?

"I dropped into an exhibition arranged for public edification by the municipal authorities of Kensington, where once I used to live. . . . So this, I thought, as I wandered round alone, is what we are coming to! What a beautiful revelation of the civilisation we have reached in this year of grace! What a lovely introduction to life for young children who are to be instructed on the wearing of gas masks, instead of reading fairy tales, and who are to be told that in a year or two they may have to take their dolls into a blanketed room to escape from a poisonous breath creeping through the streets, while millions, who are unprepared, choke to death, or are burnt and blistered!

"Great God! I thought, going round that exhibition in Kensington. So this is the best that mankind is doing with its intelligence! This is the latest exhibition of our Brave New World!

"And a few days later I read a report about these Home Office recommendations for air-raid procaulious. It was by a number of scientists at Cambridge. And was published in a small book entitled 'Protection of the Public from Aerial Attack,' published by Gollange.

"The experimenters converted four room3—shop basement, council house sitting-room, modern bathroom—into gas-proof rooms according to the official handbook.

"They found that gas penetrated bricks and plaster, cracks covered with brown paper and mushed paper, blocked-in fireplaces and sealed doors.

"In one room, gas which outside would kill in two-and-a-half minutes would kill inside within ten.

"Into the bathroom—with steel-framed windows, tiled walls, concrete floor—gas would penetrate and lill within four hours.

"If we take a specimen raid of nine bombers, each carrying a thousand small bombs, nine thousand could be dropped on an area of two square miles.

"Allowing that in an urban area only a fifth of these cause fires, that means 1800 fires. The danger of fires spreading over several blocks of buildings, making the centre of the conflagration quite unapproachable by fire brigades, is obvious.

"On hearing the warning, people will rush to their gas-proof rooms, and then when incendiary bombs set fire to the upper parts of their dwellings they will either run out and be caught by the gas or stay inside and be roasted alive.

This is how they would act if they follow the instructions of the Home Office.

"In England and Wales, say the scientists, 1,910,000 people are living already under overcrowded conditions. Another 6,759,000 would be overcrowded if they attempted to carry out the advice.

"So 8,669,000 would find a gas-proof room impossible.

"As for evacuating big cities by train, a few bombs on the termini would stop traffic for days.

"We had better concentrate on stopping that next war if possible, for if it comes retaliation is no protection. . . ."

It becomes completely shattering, does it not? Let us add up again. Britain faces:—

- (1) The possibility of frightful demoralisation by gas attack with internal panic.
- (2) The probability of her fleet being hard pressed to protect home waters.
- (3) The probability of a number of "Emdens" destroying her food lines.
 - (4) Starvation as a consequence.

Let Britain be supplied with a food reserve and let home defence protect her reasonably from the worst consequences of attack, but let her be cut off by sea from the raw materials which ships bring daily to the immense British industrial machine to be consumed. Let it all stop and Britain stops. The whole immense structure would move to a slow halt or to a halting slowness. There would be a Black Death in Britain, and complete demoralisation, with worse to follow, in the Dominions.

Clearly the great, the vital, the terrifyingly necessary thing to do is to prevent war. The second best thing to do is to be strong enough to resist an invader. We can be strong if our Empire is commercially strong, and our Empire can be commercially strong if the commercial spirit of its people is strong.

These articles are concerned in the first place with perhaps one hundred men in New Zealand, perhaps one thousand in each of the other Dominions, and with perhaps five thousand in Great Britain. These men control the great institutions, direct the great businesses, the great sea and air lines, the immense wealth that is our Empire—the wealth in Britain that finds £1,500,000,000 for armaments. But the foundation of that wealth was laid by the generations before them. They are not reaching out as their forefathers reached out. Many of them are financial "safety first" men. More and more they would rely on Governments. They are afraid. If they continue to be afraid they will, by apathy, destroy this Empire.

At a Science Congress held in New Zealand not very long ago some of those present proved conclusively that:—

(a) Migration would be a boon to Great Britain, the Dominions, and the migrants concerned.

Some proved conclusively that:-

(b) Migration would be a disaster to Great Britain, the Dominions, and the migrants concerned.

Others proved conclusively that:-

(c) Migration is just useless, anyway.

MAGNIFICENT "FAILURES."

Doubtless any expert could have proved to Sir-Walter Raleigh that disaster would probably destroy his first adventure "for the discovery of sundry rare and unknown lands, fatally, and it seemed by God's Providence reserved for England and for the honour of her Majesty." The expert would have been right. Another expert could with equal assurance have proved conclusively that even if his second venture did succeed in landing settlers in America they would not remain. They didn't. Still a third expert might have raised a "colour problem' 'to meet Raleigh's third attempt. He would have been right again, for the red-skins murdered the third band who ventured. Raleigh lost £40,000, but when his hopes should have been crushed he still believed, and said, "I shall yet live to see it a free nation."

Rhodes, too, judged by expert standards, failed with his chartered company. It paid its first dividend of sixpence after thirty years, and then only after the Privy Council had, in 1920, squared accounts as between the company and the Crown. This magnificent failure added 700,000 square miles to the Empire-a very personal achievement without parallel. I think, in recent times. He died saying, "So much to do, so little done." There is indeed something more than expert analysis and "safety first" in holding this Empire and in the destiny of our British race. Our place was not won, and will not be held, by economic reasoning. Rather, I think, does the greatness of our Empire rest in the spirit of the words used by Mr. A. A. Somerville, M.P., Chairman of the Empire Migration and Development Conference, held at the Guildhall, London, in October, 1937, when Mr., Semerville said:-

"To you, and to all the citizens of the Empire, I say we are strong enough, we are resourceful enough, and we are rich enough not to wait upon circumstances, but to compel them. I leave you with one thought, pregnant with a deep and solemn meaning, and that is: We must keep the British Empire British—that Empire which is the guardian of peace and of the liberties of mankind."

If we are to compel circumstance we must be strong. In order to be strong I venture the opinion that we must take a new view of migration and Empire development. We must visualise two migrations. The first concerns the physical well-being of the individual. We must find the way which will permit our C3 population to migrate through health to A1. It is an immense task. An increased birth-rate is not going to create a virile population over the next ten years. We have to make strong for the test those now in childhood. We have to create

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means and opportunity that will remove our young manhood and womanhood from the dole to doing. We can try to create physical well-being by the German method, or we can create for our young people opportunity in healthy work and care for their physical development by organised British sport. The second great migration can make the first possible. It must be a migration of the spirit from the domination of the lender's "safety first" mentality in Empire finance, to the domination of the old Merchant Adventurer spirit.

Because I believe most profoundly that a change in the financial outlook of Great Britain—a change, I repeat, from "lender domination" to "merchant adventurer domination" in Empire financial policy—is absolutely necessary if we are to retain our Empire, I ask you to look at some phases of Britain's history with me. I propose to divide my arguments into five sections, viz.:

- 1.—The Merchant Adventurer Period.
- 2.—The Industrial Development Period.
- 3.-The Lending Period.
- 4.—The Post-war Period.
- 5.—The New Empire.

THE MERCHANT ADVENTURERS OF ENGLAND.

Surely the Golden Age of England began somewhere in the early part of the sixteenth century, when that first chartered company, the Merchant Adventurers of England, ventured forth to build at its peak, trade with the Netherlands to the value of 12,000,000 ducats in one year. Other chartered companies sought to follow its example. In 1553 the Russia Company was established. Then came the Turkey Company, the East India Company, the Hudson Bay Company, and more besides until almost in our day, Rhodes built his British South Africa Company. Robust, venturesome Englishmen risked life and money in these. "Safety first" men were not of the spirit of England then.

THE INDUSTRIAL PERIOD.

These men and these companies were surely the sales force which opened up the new sales territory in the New World and the Old. They prepared the way for great expansion; and so came the Industrial Revolution when Abraham Darby and Henry Cort discovered how to use coal instead of coke; when John Kay invented the flying shuttle, James Hardgreaves the spinning jenny, and Richard Arkwright patented the spinning frame to revolutionise the textile industry. Then Thomas Savery, Thomas Newcomen and Watt learned to make steam the servant of man's will, and all combined to what purpose? These things combined to make Britain's financial might -combined to give England that immense financial surplus which, I believe, ushered in the lending period-to make Britain the moneylender of the world and to bring on gradually, over the years, the "safety first" outlook which is destroying her.

THE LENDING PHASE.

"One common characteristic is to be noted in the histories of the old chartered companies and the new. In both periods the company has been used by the English Government as a useful instrument of colonial expansion, but in both periods only for temporary uses. When the colony is settled the State takes the lead."

And properly so. It was right to establish Governments. What more natural, too, than that a great part of the surplus wealth built on the foundations laid by those merchant adventurers should find its way into colonial development through those Governments? What more natural than that Britain should lend to new Governments so that those Governments could buy from Britain the products of Britain's vast industrial machine? What more natural than that there should grow up in Britain all that vast machinery of lending—Banks, Insurance Companies, Underwriters and Brokers—all determined to direct a great deal of Britain's surplus wealth to Government lending, until Cecil Rhodes could say that the British Empire was built on "Patriotism plus 5 per cent."

And what more natural than that lending should become the ultra respectable in finance, and "venturing" a little unsound? What more natural than that the directors of the great lending organisations should tend to overshadow the Merchant Adventurers who really make our wealth? And what more natural than that the day should come when the borrowers, facing default, could borrow no more; and lenders, fearing, would lend no more? And with that standstill these great lending figures in finance became impotent, as they always must be when merchant adventurers who risk their money on the outside margin of risk in trade, industry, and commerce are unable to provide those fresh margins of security for those who seek safety first.

THE POST-WAR PERIOD.

And here let me deny that I am against lending; nor do I advocate unsound venturing. I do know that our British banking structure has built a world-wide structure of integrity, prudence and service upon which rests the safety of our commercial structure, I do condemn that failure of the spirit of commercial adventuring which has more and more tended to cause even the great industrial businesses of England—the very merchant adventureres themselves—to direct their profits away from new venturing to gilt-edged securities. Indeed, it is a socialisation of Britain's surplus weath. Carried to the extreme it is the means of financing the formation of an Empire bureaucracy to destroy British freedom.

A NEW PHASE BEGINS.

I venture the opinion that the collapse of inter-Empire lending following the great depression was a blessing to the Empire, for it produced a case of circumstance, compelling British leaders gradually to realise that new ways of using Britain's surplus wealth must be found. Gradually it is breeding a new idea of merchant adventuring. One phase has ended-a new one begins. The growth is slow, but everywhere I see it. The money has banked up in Great Britain like water in a dammed stream. It must be made to flow in new channels and new ways. That, I believe, is the hope of our Empire. That, too, I believe is the hope of the man on the dole. Those new channels must first be built in the Dominions -that is why I make bold to write-to urge and to hope that our business men in New Zealand will make good this National Development Council which our Private Enterprise Conference decided to form so that we might link up with the Empire Development Council which, by the energy and initiative of Mr. H. B. Donaldson and his colleagues, has been formed at the heart of the Empire.

For all around us there is pressing need that we be strong. Lest you think I too greatly fear the pressing need for action consider what Sir Philip Gibbs observed some eight years ago in "Since Then." The chapter concerns "The State of England," and the sub-title is headed "Will England Lose the Empire?" Here is what he wrote:—

"England is at the cross-roads of fate. One way leads to a powerful confederacy of nations, under the same chieftainship, with just and strong governance over peoples not yet ready for self-government. The other leads to a little England, divorced from old possessions, with a voluntary surrender of former power, a quiet retreat from restless races-to the state of a country like Denmark, but with a socialised democracy without rich or poor and with perhaps a fair general prosperity, living a good deal on foreign tourists, exhibiting its historical antiquities, proud of its past, unambitious, resigned to a lack of influence in world affairs. At the present time it is this way which is being taken, by the turning away of public opinion from the other and harder road, by the weakness and vacillation of political leaders, and by a new mentality which is hostile to authority by force of arms.

"If England shifts its burden of Empire from tired shoulders and takes the easy road of irresponsibility in the name of liberty, or some other high-sounding phrase like 'the self-determination of peoples'—not yet ready for such ideals—defenceless against their own tyrants or devils—there will be great disorder in the world, many massacres, and no high destiny for an island race which has surrendered its heritage because of heart failure.

"I see the signposts ahead. England is hesitating at the cross-roads, now, uncertain which way to take, lured by the easy road, tempted that way by her present rulers and her present mood. . . ."

Remember, Sir Philip marked those signposts eight years ago. Perhaps you can judge what those eight years have brought. Perhaps you will measure the distance we are to day from that little England; perhaps you can judge of the growth of the forces which can compel "a little England divorced from old possessions." Perhaps then you will measure the task of erecting new signposts, the task of "compelling circumstance," and perhaps, too, you will measure your own responsibility. I hope you will.

I contend that the spirit of the Merchant Adventurers of England opened up the way for the inventiveness of Englishmen who made the industrial revolution. That was the first phase. It brought immense profits, and Englishmen saw that with the establishment of Governments in the new lands it was safer to lend to Governments than to venture directly in industry. This new phase developed the great financial organisation built around the lender's safety-first ideal and largely destroyed the Merchant Adventurer spirit which made our Empire. Circumstances caused a collapse of the lending phase, and now Britain faces a revival of the Merchant Adventurer spirit which made hereign the merchant Adventurer spirit which will cause people to

bring their money, their technicians and their experience to take the ordinary commercial risks in building an Empire Commonwealth of powerful nations—or we face the dismemberment of our Empire by more virile people—we face a little England dispossessed.

At the Guildhall, in the City of London, at 10.20 a.m. on the 11th day of October, 1937, a group of people met to confer upon an important subject. To a New Zealander, they seem to be eminently important people wielding in the sum total, if it could be measured, immense power, influence and authority. The Right Honourable the Lord Mayor of London, Sir George Broadbridge, K.C.V.O., was supported by many patrons of great eminence.

The gathering included men high in many walks of life, Rt. Hon. L. S. Amery, Viscount Bledisloe, Sir H. Pagecroft, Viscount Elibank, Viscount Horne, Lord Milne, Duke of Sutherland, and leaders in the Anglican, Presbyterian, Catholis Church and Salvation Army, and many other eminent men and women specially interested in Empire problems. There were many speakers and their themes was all closely connected with the subject of filling the empty spaces of the Empire, one that was the motif of the Conference.

A British man, Mr. H. B. Donaldson, was the Honorary Organiser of this great Conference. I do not know him, although I receive letters from him packed with enthusiasm for his great cause of "Empire Migration and Development." I can imagine that he had great hopes of success. I know that he still has great hopes of success, even though more than a year has elapsed and the principal resolution-"That this Conference urges upon His Majesty's Government the need to establish forthwith a Statutory Authority immune from changes of Government, with definite financial powers, and charged with the whole-time duty, in co-operation with similar bodies in the overseas Dominions to initiate, consider, and aid in carrying into effect, schemes for the encouragement of all forms of useful Empire activities, Migration and Development, upon adequately financed and properly supervised bases"-has brought no result,

His Majesty's Government has done nothing about it. Of that I am glad, for I believe a greater result has come about. For why should such a conference await the sanction of a Government in this matter of Empire Development? Or, indeed, am I mistaken regarding the great influence, the great authority of those names above written-names of men and women at the heart of the Empire to whom we in the distant Dominions look as leaders? Did Rhodes wait for any authority? Did any of our great Empire leaders wait for Governments to facilitate their beginnings? It is true that such an authority could do much-but could men and women of such influence not themselves establish a central authority in Great Britain? I think they could, and indeed f think they have. At a Conference later held on the 11th of July, 1938, at the Empire Exhibition, Scotland, the decision to establish an Empire Development Council was made,

In England there are men determined to do things of their own initiative. Backed by the influence of those patrons and probably with their co-operation, these men ON DECK

are taking action. That surely is in accord with our British tradition. That initiative surely will bring them the Government facilities that they doubless need.

Dominion organisation is futile if British organisation is lacking. And organisation, to begin with, is a matter of the men of influence, the leaders of enterprise, deciding what they will organise.

Migration presupposes work for the migrant, and work calls for investment and Dominion expansion. The day of the gallant young Englishman facing "blacks" is gone. These men must organise for the "migration of capital." The opportunities opened up by capital will invite the migrants—will build them into the new economy—will make migration safe and orderly. What, then, do we need? To begin with, I say that we need:—

- (a) Groups of men in each Dominion capable of directing preliminary investigation and of commanding the confidence of Dominion capital.
- (b) A group of men in Great Britain capable of reexamination and of commanding British capital.

And, above all, it is vital that these men be of the stuff that Merchant Adventurers are made. They must be commercial men—constructive builders who will balance profit with human well-being. In Great Britain there will be the National Development Council. In Australia, Mr. G. S. Crimp has enjoyed the privilege of two interviews with Mr. B. S. B. Stevens, Premier of New South Wales. Mr. Stevens is Empire-minded and practical.

Given 'the men," we have but to elaborate the machinery of financial migration. Given the men, the machinery is not difficult. My own view of its nature I shall endeavour to set down in my next article. To conclude, I repeat again the words of Mr. Somerville:—

"To you and to all the citizens of the Empire, I say we are strong enough, we are resourceful enough, and we are rich enough not to wait upon circumstances, but to compel them. I leave you with one thought, pregnant with a deep and solemn meaning, and that is: We must keep the British Empire British—that Empire which is the guardian of peace, and of the liberties of mankind."

And lest you may think that all of this is futile—that we cannot compel circumstance—read this, taken from "United Empire":—

October 29th.—Sir Walter Raleigh executed, 1618. "This gives me no fear. It is sharp medicine to cure me of all my diseases."

"Even such is tame that takes in trust
Our youth, our joys, our all we have,
And pays us but with earth and dust;
Who in the dark and silent grave,
When we have wandered all our ways,
Shuts up the story of our days;
But from this earth, this grave, this dust,
My God shall raise me up, I trust."

October 29th.—Bishop Hannington murdered, 1885, in Uganda.

"I am dying for the people of Uganda, and I have purchased the road to your country with my life."

October 29th.—Rhodes' agents made a treaty with Lobengula, 1888.

October 29th.—British South Africa Company granted a charter, 1889.

"I have got a great piece of Africa, and whether you, the fathers, are for me or against me, I know that your children will be with me."—C. J. Rhodes.

These were British men.

P.S.—The position as put by the writer is certainly most serious. Since he wrote, however, there have been Imperial and international developments which have to some extent lessened the acuteness of the problem. The manufacture of armaments has been immensely speeded up in Britain and arrangements made to manufacture in the Dominions. In addition, diplomatic moves have strengthened the Empire's hand and lessened the risk both in the Mediterranean and in the Pacific. These factors, however, do not detract at all from the urgent need for immigration. Indeed, it should actually strengthen the case for this as well as for the restoration of the Merchant Adventurers of yore.

Shaw Savill Great Achievement

"THE DOMINION MONARCH.
QUEEN OF THE SOUTH SEAS.

With the shipping history of New Zealand the great Shaw Savill and Albion Company has been closely associated since the days of the clipper ships, those stately vessels that were the pioneers in the days of the early eighties. They were the veritable queens of these south seas and brought many thousands of people to settle in this far land. The history of the Company has been one of continued and uninterrupted progress which has culminated in 1938 in the entry to its service of the supremely beautiful and magnificent liner 'The Dominion Monarch,' the last word truly in shipping records.

She was launched from the yards of Swan, Hunter, and Wigram Richardson in August last and her advent recalls the launching 32 years ago of the 'Mauretania.' These two are the largest built on the Tyneside and the 'Dominion Monarch', besides being the largest, will exceed any other trading on passenger routes to Australia and New Zealand. She also inaugurates a new route, linking three great Dominions of the British Commonwealth—South Africa, Australia and New Zealand

London will be her home port, and on her outward voyages she will reach Teneriffe in 3\(^3\) days, Cape Town in 13\(^3\) days, Durban in 16 days, Fremantle in 25\(^3\) days, Melbourne in 30 days and Sydney in 31\(^3\) days, arriving in New Zealand 35 days after leaving England. To maintain this schedule, each of her four screws will be driven by a five-cylinder opposed piston engine of 8,000 b.h.p., the total horse-power developed enabling her to run at 19\(^1\) knots loaded, with an additional two and a half knots in hand to ensure regularity of arrival at ports of call.

Her principal dimensions are:-

Length overall, 682ft.; beam moulded, 84ft. 6in.; depth to bulkhead deck, 48ft. 6in.; load draught, 34ft.; load displacement (approx.), 36,000 tons.

The vessel will have all the most up-to-date equipment for general and navigation purposes, while there will be a complete sewage installation, electrically-operdated watertight doors, fire and smoke detection installation, in conjunction with a CO2 fire extinguishing sysstem, and a complete sprinkler fire extinguishing installation throughout the accommodation and store spaces.

The vessel, as previously stated, will have four sets of Diesel engines of directly reversible opposed piston two-stroke cycle airless injection type, each of 8,000 b.h.p. A sufficient margin of power has been allowed to give a speed of 22 knots loaded, which will ensure a sea service speed of 19½ knots being maintained. There will be five Diesel generating sets, each direct coupled to a 600-k.w. dynamo of 220 volts d.c. at 280 r.p.m. Special precautions have been taken to eliminate vibration by fitting these on fabricated steel base plates under which special pads are placed, the whole being secured by means of springs.

All auxiliary machinery in the engine-room is electrically driven with the exception of the steam-operated emergency air compressor and boiler feed pumps.

Steam is generated in four boilers, two of which deal with the exhaust gas from two main engines, the other two being oil-fired with natural draught on the Wallsend patent low-pressure system. The principal advantage of this system is the wide range of control, makit possible to steam the boilers from minimum to maximum rating by the use of a simple regulator on the burners.

STEERING GEAR.

This consists of 4-cylinder electro-hydraulic equipment with duplicate power units each consisting of a constant speed non-reversing electric motor driving a variable delivery pump. Each power unit is capable of meeting all normal steering requirements, and under ordinary sea-going conditions one unit is in reserve, but if specially rapid steering is required, as when docking or in narrow waters, both power units can be used, thereby practically doubling the speed of the steering gear. The change from one to two units or from one to the other can be carried out instantaneously by simply starting or stopping the motors as required. The gear is also fitted with hydraulic stop valves, whereby in the event of any of the hydraulic cylinders being damaged they can be immediately isolated from the hydraulic system and steering carried on by two of the remaining cylinders. The steering gear is controlled from the bridge by a patent hydraulic steering telemotor, and there is also a mechanical control system on the docking bridge aft. Provision has been made on the control gear for the attachment of the gyro pilot unit, which may be used as an alternative to telemotor control.

A combined rudder carrier and bearing, which is fitted directly under the tiller of the electro-hydraulic steering gear and, carries the whole weight of the rudder, rudder stock and tiller. The carrier consists of a massive cast iron pedestal secured to the deck and provided with a heavy bronze bush in which the rudder stock rotates, and on top of the pedestal is fitted a heavy bronze thrust ring on which the underside of the tiller rests. The thrust ring, radial bush and pedestal are each made in halves, and special arrangements are provided to facilitate examination or renewal of these parts without disturbing any other fittings.

The "Dominion Monarch" was built to the design and under the supervision of Commander R. J. Noai, R.N.R., (Ret.), the owners' marine superintendent, and the propelling machinery was constructed under the supervision of Mr. J. Nichol, their superintendent engineer.

PASSENGER ACCOMMODATION.

In every possible detail the accommodation for tourists, in extent, in finish, and in all those features which make for the comfort and convenience of travellers, is the last word in an art developed as the years progress. There is nothing better than the 'Dominion Monarch's' equipment in the whole range of world shipping. No expense and no trouble have been spared and the results achieved are such as to be the wonder and the delight of all who have been privileged to come aboard the ship.

The three top decks, 86 left. wide, give extensive spaces for promenade and games, with a total length of 250ft.

The public rooms, comprising lounge, entrance hall, smoking-room, writing-room, drawing and palm court, have been designed on lines which the owners' experience has found to appeal to all travellers on this service. Apart from the artificial lighting, all these rooms will have exceptionally large windows looking on to the promenade deck.

The dining saloon, with a seating capacity of 300, is 87ft. long and extends the full width of the ship. This apartment, with the adjacent foyer, will be supplied with conditioned air. The foyer, with its shop, cocktail bar and hairdressing saloons for ladies and gentlemen, forms a special feature, and from the foyer there is an electrically-operated ornamental elevator serving all decks.

The smoking-room is the only public apartment having "period" decoration. It follows the style of the sixteenth century and has the atmosphere of a Tudor mansion.

Throughout there is an atmosphere of restfulness and quiet in the colour schemes which are a joy to all travellers and a wonder to the thousands of visitors who have been through them. The woodwork schemes are 'a thing of beauty' and a marvel of artistic designs. A special feature is the combination of timbers from many parts of the Empire, giving the whole a distinctly Imperial 'flavour.'

The ceiling is oak-beamed and the inglenook in rough plaster, with its broadstone chimney piece, red brick hearth and corner seats, contrasts with the grey-ish oak of the panelling. Tapestries, Persian rugs and other furnishings, aided by the large bay windows of leaded tinted glass on both sides of the room, give a wealth of colour and interest.

The decoration of the writing-room is consistent with the quiet and privacy for which it is designed. The panelling, in figured peroba with banding in paldas, is an unusual combination, and gives a pleasing effect with the blue and silver of the general furnishings. A large bay window, looking out to sea, occupies the greater part of one side of the room. Bleached walnut has been chosen for furniture to harmonise with the peroba. Con-

-cealed individual lighting to each writing-table and comfortable chairs complete the purpose of the room.

STATEROOM ACCOMMODATION

This has been planned for 524 first-class passengers, a special feature being the number of single-berth cabins, viz., 157. In addition to two suites, consisting of bedroom with two beds, sitting-room, bathroom and lobby, there are 38 cabins with private bathroom attached. All bedrooms are fitted with cot beds, hot and cold running water, desks, drawers and spacious wardrobes, together with all other fittings now essential for the passengers' comfort. The heating and ventilation of the rooms are under the direct control of the passengers by means of electric radiators and adjustable punkah louvre ventilators. A telephone is placed at each bedside.

A large nursery with separate dining-room is provided away from the main saloon, and a separate deck is allocated for the use of children.

Special attention has been given to the hospitals, which are amidships and have separate general and special wards in charge of the ship's surgeon and a fully-qualified staff. There are also self-contained isolation hospitals well removed from the passenger accommodation.

The requirements for so many passengers have been foreseen in the provision of a laundry capable of dealing with the large amount of linen which must necessarily be carried, whilst separate ironing rooms are installed on each deck for the use of lady passengers.

THE CATERING DEPARTMENT.

The kitchen and main pantry are placed at the after end of the dining saloon and there is a service pantry on each deck, these latter being in direct communication with the main pantry by means of an interior staircase and electrically operated lift. Separate refrigerated chambers to carry all commodities are provided immediately below the kitchen.

All the pantries are fitted with the very latest electrical appliances to ensure perfect service to passengers, including coffee percolators, toasters, hot presses, cold cupboards, etc. On the port side of the main pantry is a room set apart for the washing of plates, etc., in which is a plate-washing machine, capable, with practically no handling of plates, cups, and saucers, of washing and drying as many as 3,000 pieces per hour.

Adjoining the glass and silver cleaning room is a chamber racked for the storage of electro-plate. An outstanding feature of this room is the burnishing machine, where silver, both large and small, is placed in a revolving cylinder filled with steel shot. This ensures the plateware always preserving a brilliant surface, free from the scratches which show when it has been in use for any period.

On the starboard side is the Chief Steward's Office, where the service clerk is in telephone communication with each cabin and every part of the ship. It is from this centre that orders of all kinds are transmitted to the various service pantries. Adjoining the office are fruit and salad preparation rooms, where the latest models of fruit juice extractors and slicers and cold cabinets are installed.

The main pantry is fitted with all-electrical heating hot presses, bains-marie, toasters, griddle plates, waffle makers, coffee percolators, etc., while for special orders there is an electrical cooking range, grill and salamander. The pantry is arranged to give perfect service without rush or delay.

In the centre of the kitchen ,an electric range, 13ft. 5in. long by 6ft. 6in. wide, with five ovens on each side, will give ample cooking accommodation for the 520 first-class passengers. The top is fitted with 30 boiling plates.

Other rooms include those for vegetable preparation, in which there will be an electrical potato-peeler dealing with 28lb. of potatoes in five minutes; the butcher's shop, fitted with electrical mincers and meat-slicers; the Chef's larder, equipped with nests of cold cupboards, marble slabs, etc., for the preparation of all delicacies for the cold buffet; and fish room, which has an electrical fish-fryer and salamander, together with generous space for cold cupboards. There will also be steam cookery, confectionery, bakery and dairy.

Facilities are there for long medium and short-wave communication enabling telegraphic communication to be carried out at all times with any part of the world or with any other ship. The main wireless set is a 2-kw. transmitter with an aerial rating of 750-1,000 watts. This embraces the whole of the commercial wavelengths, including the band used for Press reports from Rugby on long wage.

For long-distance working on short wavelengths there will be a short-wave transmitter, and a short-wave receiver.

For navigational purposes the latest type of direction-finder has been installed. This instrument has a degree of precision and performance which is unequal-led. Two motor lifeboats are also fitted with wireless transmitters and receivers.

The extensive verandah cafe, also the full width of the vessel, is available as a cinema, in which programmes of the latest talking pictures will be given. A permanent open-air swimming pool, with dressing-rooms and fully-equipped gymnasium adjacent, will be popular with travellers, and for those who prefer their recreation in a less strenuous manner, a large flush deck around the pool is provided for sun bathing, etc. The upper promenade, or lounge deck is glassed in for a distance of 52 feet at the forward end, and the lower promenade deck has a complete circuit of over 300 yards.

Other features of the extensive and complete accommodation include:

CARGO ARRANGEMENTS.

The vessel has six cargo holds, and these, with various 'tween deck compartments, are insulated, so that a refrigerated capacity of approximately 505,000 cubic feet is obtained. Included in this amount there are about 66,500 cubic feet of space specially arranged for the carriage of chilled meat in gas-tight compartments. The balance of the space available for general cargo will be about 162,000 cubic feet. To ensure expeditious handling of cargo there will be 24 electric winches each capable of lifting 5 tons at 130ft, per minute, and at No. 2 hatchway there will be a derrick of 40 tons lifting capacity.

A Pilot's Span

CAPTAIN CLIFFORD WILFRED PALMER.

(On his retirement from the Port Phillip Sea Pilot Service).

4/2/39.

I.

Way back in Nineteen-Five, A.D.
I got fed up with going to sea;
So I packed my duds and with heart a-throb
I applied to the 'Board' for a pilot's job.
Twelve grave-faced members voted—"YES!"
Thus I started in the P.P.S.P.S.

11.

The pilots, then, looked old to me—Such a bunch of bewhiskered whales, you see, They sneered:—(I was only thirty-one) "How the hell did you get in here, my son?" But their bark was worse than their bite, I guess, And I settled in the P.P.S.P.S.

Ш

I've piloted craft of every rig—
Square-yarders, yachts—and in one squat brig
All the boats were smashed in the treacherous Rip,
And the wheel 'went west' from that wallowing ship.
Though I clung to the rigging I must confess
'Twas a beggar in the P.P.S.P.S.!

IV.

In a nor'west breeze I was blown away
Through the Straits in a barque to Waratah Bay;
We tacked like fury and wore ship, too,
And wore to a shadow all the worn out crew.
For weeks we breasted it—more or less—
What a battling in the P.P.S.P.S.!

V

But the pilot' game wasn't always rough, (Though the grub in a tramp was tough enough), On dredgers' bridges I've often stood, And liners I've conned—and the warship "Hood." Lut to pilot a Duke and his fair Duch-ess Was an honour for the P.P.S.P.S.

VI.

I've been baffled by gales—heard the fair wind's song—Sailing in through the Heads up to town or Geelong; I have kept to my turn through the Roster's grind, And I've 'drawn many bills' when I felt inclined! (But at times I have got in a hell of a mess When 'wangling' in the P.P.S.P.S.!)

VII.

Well, my watch is up, and I've done my trick, So long "Akuna"—goodbye old "Vic"; Of our happy past I shall think a lot, And I hope we may meet many times for a spo!! So with heartfelt love I say:—"God bless My colleagues in the P.P.S.P.S."

-G. S. DOORLY.

Correspondence

(THE EDITOR.)

Dear Sir,

At the Committee meeting of the Company last week I was most interested in the address given by Dr. Simmers and I think some record of these addresses should be published in "On Deck" for the benefit of our members who are unable to attend the meetings.

As Dr. Simmers said, we have been thinking in inches when measuring the atmosphere; we have now to think in millibars as millibars is the measurement adopted internationally. The great growth of Air Transport and the rapid communication between one country and another made it imperative to adopt one standard throughout the world.

"On Deck" has published a table of conversion of inches to millibars; these three conversions can be memorised—

29.53 inches equals 1000 millibars, 30.00 equals 1016.

30.24 inches equals 1024 millibars.

1 millibar is equal to .03 inches.

Dr. Simmers also gave us an address on forecasting and Meteorology of to-day, which is framed to meet the needs of air pilots as well as nautical men. As an item of interest I enclose a paper I wrote when in saling vessels.

Yours faithfully, "STARBOARD WATCH."

(To the Editor.)

WRECKS ON NEW ZEALAND COASTS.

Sir,—In looking over old records one is struck by the number of wrecks on the New Zealand coast in the carly days. The present day generation do not know what the sailors of the 60's and 70's had to put up with. There were no engines to take one over the bar but they had to rely solely on the wind and in a great number of cases it failed at the critical moment, and one has only to have a slight knowledge of the West Coast bars to know what would happen as the tides and currents did not run straight in or out. Hokitika has a good number of wrecks to her name in the early days of the gold rush, as she was a very busy port. At one time there were 62 sailing vessels in port at the same time, besides several on the beach outside.

Kaipara was and still is a bad bar for sailing vessels, and the number that came to grief on the "Graveyard," as one place is called, would surprise the present-day generation. The Kaipara bar starts five miles out, so it can easily be seen what an anxious time Masters must have had. Hokianga has also a bad name for sailing vessels. In fact all harbours on the West Coast were notorious. On the whole of the West Coast there is not a natural harbour. Whangape was once a call for timber but now is only a name. Not many years ago a schooner loaded there and was not ready for the evening tide and

remained there for 410 days owing to the bar not being workable.

The "Aborigine" (brigantine), belonging to Hokitika, was off the bar one evening too late for the tide and during the night a south-wester came along and she was out for four months. Imagine a shipowner of the present day if one of his boats was outside for four months. Some time later she was wrecked in the river during a north-east gale, so one was not always safe inside. The writer has a model of the "Aborigine," made by the Captain over 64 years ago, and is restoring it as near as possible to the original. New Zealand coasts have taken a heavy toll of the old fleet that was a "thing of beauty but not a joy for ever.

A.G.B., Captain.

[Our correspondent has also noted that a considerable number of shipwrecks are not known to many. We hope to learn more of these, for they are an integral and interesting sphere of the history of New Zealand Shipping.—Ed.]

(To the Editor.)

Sir,-As one of the proud and happy fathers referred to by "Curious" in December issue of "On Deck." I feel he should be enlightened as far as possible. Personally I do not think the coincidence is due, as suggested by "Curious," to any stimulating diet issued by the company to its crews, and I might add we have not noticed the manager dining aboard any of his vessels-therefore the arrival of his granddaughter could hardly be attributed to that source. The more likely solution of the coincidence, in my opinion, was the manager's untiring efforts during the 1937-38 holidays to "juggle" his vessels so as to give their respective crews Christmas and New Year in their home ports. The abnormal weather of the past festive season unfortunately prevented his kindly action of 1937-38 being repeated. If "Curious" is observant, he will watch the birth notices of 1939 and may then be able to form his own conclusions .-- Yours faithfully,

INFORMATION.

Improvement and Encouragement of Navigation

Just as we were going to press a copy reached us from the Marine Department, of a circular giving particulars of prizes offered by the Thomas Gray Memorial Trust for the improvement and encouragement of navigation.

A brief reference will show that a prize of £25 each will be given (1) for an invention likely in the opinion of the judges to be an advancement in the science or practice of navigation and (2) for an essay on the carriage of dangerous goods at sea. Notice and entry of these must reach the Secretary of the Arust, Royal Society of Arts, John St. Adelphi, London, W.C.2, before December 31, 1939.

Law of Storms

The term "Law of Storms" is applied to the observed and recorded phenomena of storms, cyclonic in character and known by the names of hurricanes, cyclones, and typhoons, terms which must be understood to mean the same species of storm, independently named where these aerial meteors run their devastating careers. The sizes of these storms vary from 30 to 3000 miles in diameter. Miniature revolving storms exist and are known by the names of tornadoes, whirlwinds, simoons, etc., but these do not cover an area of more than as many feet, and cannot be classed under the same head, nor have they yet been shown to be governed by the same laws as the larger storms. The velocity of the wind in these small storms is terrific reaching as much as 300 miles an hour.

The storms under consideration follow known tracks and obey known laws which may be condensed as follows:—

The tracks in either hemispheres originate between Latitudes 8degs, and 15degs, N. or S. then follows in a W.N.W. in Northern and W.S.W. in Southern hemisphere recurving to the Northward or Southward between latitudes 25degs. and 30degs. N. or S. around the permanent high pressure area or anticyclone which exist in these latitudes in either hemisphere, after which they pursue a N.E. or S.E. track, in the respective hemispheres until the storm finally breaks up; it is by no means necessary that storms travel the whole track, such is the exception rather than the rule; they may originate or break up over any part of the track travelling over a section only. In addition to the onward motion. storms rotate on their own axis, the wind blowing into and around the centre with an incurvative which varies with the distance from the centre where it is least and with the distance of the storm from the equator where it is greatest; in the rear part of the storm the incurvaure is generally known than in the advancing part, the direction of the revolution is clockwise in the Southern hemisphere, counter-clockwise in the Northern hemisphere. These directions are mainly governed by the Earth's revolution. The air which is drawn from the equatorial regions retaining some of its original Westerly velocity which it had in common with the earth. The resultant is a N.W. wind in the Southern and a S.W. wind in the Northern hemisphere; similarly the air drawn from the Polar regions has a less Westerly velocity than the earth in the region of the storm and results in a S.E. wind in the Southern and a N.E. wind in the Northern hemisphere thus blowing round the pressure area instead of directly into it. There is little doubt that in the centre the wind rushes upwards until it reaches the upper limit of the storm where it again spreads outwards and helps to maintain the circulation. That this is the case is evidenced by the fact that in the centre the sea rises upwards in pyramidal heaps, birds have been seen to be drawn upwards and anything that the wind can get hold of takes an upward flight.

The practical results of these laws are, firstly, that if in the Northern hemisphere we face the wind the centre will be towards our right hand and back, so if we run with the wind on the starboard side we shall be

running from the centre, and this must be our rule for running in the Northern hemisphere.

In the Southern hemisphere, if we face the wind, the centre will bear towards our left hand and back. So in the Southern hemisphere if we run we must carry the wind on the Port side.

Secondly, we can divide the storm into two halves by its line of progression, that on the right, the right hand semi-circle, that on the left the left hand semicircle. Since in the Northern hemisphere the storm is always bearing to the right, . . . the right hand semicircle is the most dangerous in this hemisphere, and for a contrary reason, the left hand semi-circle is the dangerous one in the Southern hemisphere. It is also a fact that in these semi-circles the wind blows in the same direction that the storm is travelling which is a natural consequence of their revolution, and as the storm may be travelling as much as 30 miles an hour, so we have an augmented velocity of the wind in these semicircles; an important result of these considerations is that if we suppose two ships laying to in different semicircles and the storm passing over them, the ship in the right hand semi-circle will have the wind hauling right handed, and the ship in the left hand semi-circle will have the wind hauling left handed, and this will hold good in both hemispheres, and since a ship must lay to on the coming up tack, the rule for laying to must be the Starboard tack for the right hand semi-circle and port tack for the left hand semi-circle in both hemispheres. For a general rule for manoeuvring a ship in a cyclone we have-

In either hemisphere when in the dangerous semicircle lay to, when in the safe semi-circle carry sail, and when weather improves, if getting too far from course, lay to. If right in front of the storm, which will be indicated by the wind not shifting, carry sail, in all cases laying to or running with the wind on the side already decided on in this paper.

The season when these storms occur is just before, or at, the autumnal equinox in both hemispheres.

"Glorious First of June"

GREAT NAVAL VICTORY IN 1794,

PARALLEL TO JUTLAND.

(Written by Naval Enthusiast.)

The celebration of of the anniversary of Jutland on Tuesday, May 31st, calls to mind a famous naval engagement fought for five days in 1794 and terminating in the victory gained by the British Fleet, known as the "Glorious First of June." Lord Howe was the commander of the Fleet, and though a considerable number of the French Fleet escaped, the rest was captured or destroyed and the moral effect on the French nation materially helped to disparage the might of their fleet and was a step in the direction of that unchallenged supremacy achieved by Admiral Nelson in a series of victories that ended with Trafalgar and Nelson's death. In fact, a leading naval writer of that day said that "not only the fate of England, but that of Europe, depended

mainly on the result of those fateful and eventful days. It led the way to other victories." It is much the same as was justly said of Jutland.

What makes the engagement of unusual interes: to the people of this century is the fact that it was fought by the British in the endeavour to capture a convor carrying corn to the French people suffering from famine induced by a bad harvest in the preceding spring. This shipment of corn was purchased in America and to protect it, the French Admiral, Villaret Joyeuse, sent eight men-o'-war to cover the hundred ships comprising the convoy. Howe had also to protect a smaller provision fleet and this left him with twenty-six ships to counter a slightly larger number of French vessels. He arranged to lie in wait off Ushant where the French were anchored in readiness for a move to a rendezvous four hundred miles to sea on a given date. Howe therefore intended to put his fleet between the French main fleet and the convoy. Unfortunately, as it first seemed, the French slipped out during a fog, and Howe had to follow them thither instead of in the place he chose.

Much of the work of the gigantic fleet of every conceivable description of war vessel in 1914 was in this same work of convoy—food for the Homeland, men and munitions for the various spheres of action. Surely history has again repeated itself in a most remarkable fashion and the difference is in the main one of size and scope.

Away then went Howe in pursuit and on May 28th, he sighted the enemy ten miles to windward. Collecting his fast ships he came into action and then the French Admiral brought about the move which Howe desired and aimed at, by sailing to leeward to protect some ships that were in danger.

Then occurred another coincidence with 1916-when for prevented the general action and Howe just kept in touch until May 31st, when the weather cleared. This hapsened late in the day, and therefore Howe deferred his attack till the morning of June 1st. As the fleet approached, the French attempted to render their opponents immobile by firing at their masts and sails and this achieved some success. However, undaunted, the English ships stood in to close range and, like Nelson in one . of his most famous victories, each ship marked its immediate antagonist in the line. The attack was in the main a success, though much difficulty was experienced in some cases in getting through. It is related that Howe's flagship, Queen Caroline, had so little room that she brushed the ensign of the French flagship and grazed the Jacobine's mizzen shrouds. This was only one of many similar actions, such as were never outdone in daring even by those of Collingwood and Hardy at Trafalgar. The exploit was the greater, in that the ships of the English were not efficiently manned or gunned, and the crews were largely raw and the captains inexperienced. Some captains were courtmartialled afterwards for failing to go through and their excuse that they feared they might be firing into their own friends, was considered not sufficient and they were disrated. The result of the manoeuvre was that about half the French fleet were dismasted and put out of action. The English ships captured eight and arrived a few days later at Portsmouth with those in tow. It was at that time a novel sight.