Minutes of a Meeting held at 10, Downing Street, S.W., on April 23, 1917, at 5 p.m.

Present:

THE PRIME MINISTER (in the Chair).

The Right Hon. the EARL CURZON OF KEDLESTON, K.G., G.C.S.I., G.C.I.E.
The Right Hon. the VISCOUNT MILNER, G.C.B., G.C.M.G.

The following were also present:—

The Right Hon. LORD ROBERT CECIL, K.C., M.P., Minister of Blockade.
The Right Hon. C. ADDISON, M.D., M.P., Minister of Munitions.
The Right Hon. LORD DEVONPORT, Food Controller.
SIR HENRY REW, K.C.B., Permanent Secretary of Food.
The Right Hon. SIR A. STANLEY, M.P., President of the Board of Trade.

The Right Hon. SIR JAMES MACLAY, Bt., M.P., Shipping Controller.
SIR L. G. CHIOZZA MONEY, M.P.
SIR R. H. BRADЕ, K.C.B., Secretary, War Office.
SIR H. BABINGTON SMITH, K.C.B., C.S.I.

Mr. U. F. WINTOUR, C.M.G.
Mr. J. F. BEALE, Secretary, Wheat Commission.
Professor W. G. ADAMS.

Lieutenant-Colonel SIR M. P. A. HANKEY, K.C.B., Secretary.
Fleet Paymaster P. H. ROW, R.N., Assistant Secretary.
Captain CLEMENT JONES, Assistant Secretary.
Submarine Menace and Food Supply.

1. THE War Cabinet had under consideration a Report by the First Sea Lord of the Admiralty (G.T.-519) (Appendix I), relative to the submarine menace and the food supply, in which their attention was particularly drawn to the following points:

(a.) The increasingly heavy losses of our merchant ships by mine and submarine attack.

(b.) The necessity for the provision of patrol vessels, &c.

(c.) The failure of the existing type of mine to prevent the egress of the German submarines from their bases.

(d.) The necessity, whilst we possess the shipping required for the purpose, to build up such a reserve of food in the country as will enable the population to be fed until the submarine menace can be got under control.

(e.) The building of mammoth unsinkable ships so as to ensure our obtaining supplies during the latter part of 1918.

2. Sir Leo Chiozza Money stated (Appendix II) that the gross tonnage on the registers of the United Kingdom and British Dominions on the 1st January, 1917, was 16,788,000 tons; that on the 1st May it would approximate to 15,467,000 tons; and that by the end of 1917 it might be estimated, after making an ample allowance for war losses, losses by war damage and marine losses, at 12,882,000 tons.

He further stated that in this estimate he had made the necessary allowance for new construction, ships purchased, and for damaged ships repaired, and that he had arrived at the conclusion that, if the present tonnage (8,050,000 tons) appropriated for the use of the Navy and Army and that retained abroad for other reasons remained as at present, the total tonnage available for the imports for the United Kingdom would only amount to 4,812,000 tons on the 31st December, 1917, as against 8,394,000 tons on the 1st January, 1917.

The figure given by the First Sea Lord as to the estimated losses approximated to that arrived at by Sir Leo Chiozza Money.

The Shipping Controller was of opinion that it would not be safe to count on more than 500,000 tons of extra shipping from the United States of America as an addition to British shipping after taking into account the assistance that they might render from a shipping point of view to the Allies, though such help would mean a corresponding release of our shipping that was now appropriated for Allied requirements. He estimated that there would be eight and a half to ten weeks' supply of wheat in the country at the end of May.

Sir Leo Chiozza Money then proceeded to explain to the Cabinet the effect that the reduction of shipping would have on our imports.

3. He stated that on the 1st January, 1917, after making the necessary allowances for ships appropriated for War services, &c., and assuming that that remained a constant until the end of the year, we had 8,394,000 tons available for the carriage of imports. On the 31st December, 1917, however, he roughly estimated that the amount would be reduced to only 4,812,000 tons, which meant that, after making an allowance for the cargoes brought in by neutral ships, and also taking into account the policy of shortened routes which was being adopted, we should by December only be able to import monthly a total of 2,030,000 tons, as against 3,000,000 tons last January. This meant a total reduction of no less than 15,000,000 tons on last year's imports.
Cereals Required.

4. The Food Controller informed the War Cabinet that it was necessary to import 1,425,000 tons of cereals every month (including 150,000 tons to build up stocks), which would, on the basis of the import capacity estimated by Sir Leo Chiozza Money, in May only leave approximately the necessary shipping for 360,000 tons of further imports.

Army Requirements.

5. The Director of Contracts, War Office, stated that the Army requirements amounted to about 428,000 tons a month, but that only about 224,000 of this amount was imported into the United Kingdom in unrequisitioned ships, the remainder being discharged direct at the various theatres of war abroad.

Horses, Mules, and Fodder.

6. With regard to the importation of horses and mules for the War Office, the transport required was 8,900 tons of shipping a month. In addition, for the fodder for the horses in all theatres of war, carrying capacity to the extent of 151,000 tons was necessary every month. Of this tonnage rather over 90,000 tons per month was required for France.

Sir Leo Chiozza Money explained that about 150 merchant ships, with a gross tonnage of 660,000 tons, were employed in connection with the British Expeditionary Force in Salonica.

Salonica Shipping Requirements.

7. The Director of Timber Supplies stated that the stocks of timber had fallen by 60 per cent, during the past four months, and that there were apparently only three months' supplies in hand. We could, he thought, trust to home production to provide the required amount of pit-wood, except for the collieries of South Wales. But the home production of sawn timber was exceedingly small compared with the amount which was needed indispensably for war purposes. He instanced the large irreducible consumption in the manufacture of ammunition boxes, only a fifth of which were returned.

Timber.

8. With regard to the importation of manufactured munitions and iron and manganese ores, &c., the Minister of Munitions pointed out that he proposed to postpone until August next the shipment of 8-inch and 6·2-inch shells from America, which would mean a postponement until after August of the transport of a total of about 20,000 tons. With regard to the importation of iron-ores, &c., he stated that we received from abroad between 600,000 and 800,000 tons a month, but that he hoped by next August to be producing at the rate of some 200,000 additional tons a month from home sources, and had taken steps to alter a large number of foundries so as to enable them to deal with home productions of ore, which required different treatment from foreign ores. The monthly importations by the Ministry of Munitions amounted to 1,400,000 tons.

Munitions.

9. With regard to steel for shipbuilding, the Minister of Munitions informed the War Cabinet that he had made arrangements to release almost immediately about 2,500 tons per week, and a further amount of about 2,500 tons a week in the near future, after certain Italian commitments had come to an end. The Minister of Munitions emphasised the point, however, that increases in steel production depended entirely upon increased supplies of ore, and that our capacity for steel production was at
present in excess of the supplies of ore. He stated that Mr. Ford was contemplating laying down in the South of Ireland slips for shipbuilding, and he advocated a large increase generally in this direction in the United Kingdom, adding that, by utilising four of the existing munition factories, a great deal could be done to increase the output of marine engines.

The Shipping Controller stated that many of the yards were short of labour, but that, as more steel became available, a certain additional amount could be worked into the ships in spite of the labour difficulty, and that probably another 90,000 men were required to carry out the estimated maximum shipbuilding programme.

10. The President of the Board of Trade informed the War Cabinet that there was enough cotton in the United Kingdom to last four months, and that our imports of this article amounted to approximately 1,000,000 tons per annum. As regards tobacco and fertilisers, we imported annually 70,000 and 400,000 tons respectively. It was stated by Sir Leo Money that the imports required for the civil population monthly amounted to 553,000 tons.

11. The First Sea Lord of the Admiralty asked the War Cabinet to consider the question of building mammoth "unsinkable" ships (War Cabinet 117, Minute 16). He stated that he had had designs prepared for a vessel 800 feet long, with a draught of 36 feet, that was practically unsinkable, and had a dead-weight capacity of 40,000 tons. It was estimated by his technical advisers that one or two such ships could be built in a year, and that four or five could be completed in from fifteen to eighteen months.

The Shipping Controller added that one such ship was equivalent, as regards steel requirements, to eight or nine steamers of 8,000 tons capacity, and that that number of vessels should only take six months to build.

12. As a preliminary to the further restriction of imports, development of shipbuilding, &c., the War Cabinet decided that—

(a.) After the discharge of timber cargoes now loaded or loading, no further timber should be shipped until the sanction of the War Cabinet had been obtained, and that such sanction would not be given until the Department desiring such timber had fully established the urgent necessity for its importation before the War Cabinet;

(b.) On account of the shortage of steel, the First Lord of the Admiralty should enquire into the strategic aspect of discontinuing the building of airships, so as to save the erection of the sheds required for housing them.

(c.) The Shipping Controller, after consultation with certain shipbuilders, should report to the Cabinet at an early date:

(1.) How many more standard merchant ships could be built with the present supply of labour and an increased supply of steel—the extra amount of steel so required being stated.

(2.) If the quantity of steel was unlimited, what were the additional resources for shipbuilding, and what additional labour would be required to take full advantage of the extra material.

(d.) The First Sea Lord should enquire and report as to what effect, if any, the entry of the United States of America into the War would have on the Naval Shipbuilding Programme to 1918.
Reduction of Army Horses.

(a.) The War Office should submit a statement showing how a reduction of (a) 25 per cent. and, alternatively, (b) 50 per cent. of the number of horses for which they are responsible would, if ordered by the Cabinet, be spread over the various Army services, specifying in each case what amount, if any, of light motor transport would be necessary in lieu.

Civil Requirements.

(f.) The War Office should ascertain and report as soon as possible the number of horses used by the French—for example, on the Western Front—in the units of each of their Army services, and at the same time furnish a statement comparing with these similar numbers in the British organisation.

"Unsinkable" Ships.

(g.) The President of the Board of Trade should furnish the War Cabinet at an early date with the details of the imports (553,000 tons a month) said to be required for the civil population.

(h.) A Meeting should be held at 3:15 p.m. on the 24th April, to consider the proposal of the First Sea Lord with regard to the building of mammoth unsinkable merchant ships, and that Lord Pirrie, the First Lord, the First Sea Lord, the Director of Naval Construction, and the Shipping Controller should be invited to attend.

Men-of-war as Wheat Carriers.

13. The First Sea Lord informed the War Cabinet, in reply to their enquiries as to what old men-of-war were available for conversion into wheat carriers in case of the greatest emergency—that is, our being face to face with starvation—that only a few old battleships were available.

The War Cabinet requested him further to consider the whole question of the possible utilisation of the old British and Allied warships for the transport of wheat or other commodities, or in the relief of merchant ships now employed for Naval or Military purposes, and report on the subject in due course.

14. The War Cabinet decided—

To resume consideration of this subject at an early date.

(Initialled)  D. Ll. G.

2, Whitehall Gardens, S.W.,
April 24, 1917.
APPENDIX I.

THE SUBMARINE MENACE AND FOOD SUPPLY.

(Memorandum by the First Sea Lord.)

IT is necessary to call the very serious attention of the War Cabinet to the increasingly heavy losses of our merchant ships by mine and submarine attack. It appears quite evident that the situation calls for immediate action and the adoption of such measures as are possible, both to minimise further losses and to ensure such rapidity of construction as will enable us to replace the ships lost with sufficient tonnage to allow of a continuance of the war.

The serious nature of the position is best shown by the following figures:

<table>
<thead>
<tr>
<th>Submarines</th>
<th>Mines</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>British</td>
<td>65</td>
<td>218,094</td>
</tr>
<tr>
<td>Allied</td>
<td>47</td>
<td>90,399</td>
</tr>
<tr>
<td>Neutral</td>
<td>57</td>
<td>98,404</td>
</tr>
<tr>
<td>Total</td>
<td>169</td>
<td>406,897</td>
</tr>
</tbody>
</table>

The serious nature of the position is best shown by the following figures:

Comment is unnecessary in the face of comparison with figures for former months. An even more serious feature of the case is the exceedingly heavy losses that have been reported during the last few days, e.g. —

For the twenty-four hours ending noon, the 20th April, nine British ships, of a total of 27,074 tons, were reported sunk; and, in addition, three others were damaged, but are being towed into port.

For the twenty-four hours ending noon, the 21st April, nine British ships, of a total of 29,705 tons, were reported sunk.

It is true that some of the vessels mentioned in these two latter statements were sunk on the 18th April and are therefore included in the total for the period from the 1st to the 18th April, but the point to which I wish particularly to direct attention is that reports of so large a number of vessels being sunk have come to hand in two successive periods of twenty-four hours. It is obvious that the continuance of such a rate of loss for even a few days will produce the most serious results.

The only immediate remedy that is possible is the provision of as many destroyers and other patrol vessels as can be provided by the United States of America, and Admiral De Chair has been directed to represent to the United States authorities the urgency of the matter; also Rear-Admiral Sims, of the United States Navy, has, at my request, sent a telegram couched in strong terms pointing out the gravity of the situation.

... Until means can be found and provided for a more extended attack on submerged enemy submarines, the only palliative consists in the provision of a sufficient number of small craft to keep them submerged, and so cramp their activities.

The various methods for attacking submerged submarines in the open sea are by bombs dropped from aircraft, by depth charges dropped from patrol vessels, by paravane attack, and by heavy shell in the nature of depth charges fired by patrol vessels. The three former weapons are already in use to the full extent of our resources. Every possible effort is being made to manufacture and supply howitzers throwing heavy shell to explode underwater, but our efforts have been much interfered with by labour strikes, with the result that the supply of these weapons so urgently needed is greatly delayed.

The measures which were to a certain extent successful against enemy submarines...
when surface attacks were common, and which comprised defensive armament of
merchant ships, the employment of decoy ships, and the provision of smoke-making
apparatus, have all diminished very much in value since the submerged attack by the
submarine became common.

The obvious remedy of endeavouring to prevent the egress of submarines from
their bases by the use of mines has been carried out to the fullest extent compatible
with our supply of mines. Mines are laid in German waters as fast as they are produced
by the manufacturers, but I have reasons to fear that our present pattern of mine is not
satisfactory against submarines; otherwise it is hardly credible that, with the large
number that have been laid in the last four months, the losses in submarines would not
have been very heavy. The new type of mine, which will undoubtedly be satisfactory
against submarines, is only in the early stages of manufacture, and no considerable
deliveries will take place before July.

There is a period, therefore, until July, during which we are bound to face most
serious losses, and the proper course of action appears to me to be to build up—whilst
we still possess the shipping necessary for the purpose—such a reserve of food in this
country as will enable the population to be fed when the time arrives—as it surely
will—when our shipping will be at a very low ebb, and we shall not have benefited by
the use of the German ships now interned in America, or by new tonnage which may
be produced by America or by this country.

There is one further and most important matter to be considered, and that is our
supplies for next year. There are two separate and distinct policies in regard to ship-
building which we might adopt. The first is to build a very large number of small
merchant ships which would be more immune from submerged attack than larger
vessels owing to the small target they present, and to the dispersion due to their large
numbers; and, secondly, the provision of a few of the largest ships that can be
designed. Ships of this latter type could be made practically unsinkable, and, being
few in number, we could afford sufficient destroyers to escort them through dangerous
waters, and so render them safe against submarine or mine attack.

The Admiralty have proposed both these alternatives. Neither has been adopted,
but instead a type of vessel midway between the two alternatives—a vessel which is,
by her size, vulnerable to attack, and is yet so small that large numbers are required,
making the provision of escort impossible.

I am certain that it is essential for the security of the country that some vessels of
the largest type should be immediately constructed, and that they should be given
priority over everything else; if this were done, I believe that they would be running
by the summer of 1918.

All considerations as to whether they will be paying concerns commercially should
be swept aside ruthlessly, in view of the danger facing us that all the sacrifices which
the country has made may be negatived by the menace of starvation.

April 22, 1917.

[1355-135]
APPENDIX II  

TABLE (A).

BRITISH Steamships of 1,600 Tons Gross and Over: Loss and Gain.

Estimate by Sir Leo Ghiozza Money.

<table>
<thead>
<tr>
<th>Month</th>
<th>Tonnage at Beginning of Month (a)</th>
<th>Losses during Month</th>
<th>Gains during Month</th>
<th>Tonnage at End of Month</th>
<th>War Services, Serving Abroad, &amp;c.</th>
<th>Tonnage Remaining for Service of United Kingdom</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>War Losses. (b)</td>
<td>Losses by War Damage (c)</td>
<td>Marine Losses. (d)</td>
<td>Total Losses.</td>
<td>New Construction (e)</td>
<td>Ships Purchased (f)</td>
</tr>
<tr>
<td>1917</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>January</td>
<td>13,788,000</td>
<td>24,000</td>
<td>31,000</td>
<td>55,000</td>
<td>16,544,000</td>
<td>47,000</td>
</tr>
<tr>
<td>February</td>
<td>15,511,000</td>
<td>34,000</td>
<td>39,000</td>
<td>73,000</td>
<td>18,155,000</td>
<td>78,000</td>
</tr>
<tr>
<td>March</td>
<td>15,278,000</td>
<td>24,000</td>
<td>35,000</td>
<td>59,000</td>
<td>15,838,000</td>
<td>112,000</td>
</tr>
<tr>
<td>April</td>
<td>15,064,000</td>
<td>20,000</td>
<td>30,000</td>
<td>50,000</td>
<td>15,238,000</td>
<td>100,000</td>
</tr>
<tr>
<td>May</td>
<td>15,467,000</td>
<td>27,000</td>
<td>33,000</td>
<td>60,000</td>
<td>14,809,000</td>
<td>100,000</td>
</tr>
<tr>
<td>June</td>
<td>15,327,000</td>
<td>20,000</td>
<td>30,000</td>
<td>50,000</td>
<td>14,425,000</td>
<td>100,000</td>
</tr>
<tr>
<td>July</td>
<td>14,723,000</td>
<td>22,000</td>
<td>29,000</td>
<td>51,000</td>
<td>13,912,000</td>
<td>100,000</td>
</tr>
<tr>
<td>August</td>
<td>14,200,000</td>
<td>23,000</td>
<td>26,000</td>
<td>49,000</td>
<td>13,125,000</td>
<td>100,000</td>
</tr>
<tr>
<td>September</td>
<td>13,775,000</td>
<td>17,000</td>
<td>24,000</td>
<td>41,000</td>
<td>12,900,000</td>
<td>100,000</td>
</tr>
<tr>
<td>October</td>
<td>13,414,000</td>
<td>15,000</td>
<td>23,000</td>
<td>38,000</td>
<td>12,625,000</td>
<td>100,000</td>
</tr>
<tr>
<td>November</td>
<td>13,188,000</td>
<td>15,000</td>
<td>23,000</td>
<td>38,000</td>
<td>12,725,000</td>
<td>100,000</td>
</tr>
<tr>
<td>December</td>
<td>13,040,000</td>
<td>15,000</td>
<td>23,000</td>
<td>38,000</td>
<td>12,548,000</td>
<td>100,000</td>
</tr>
</tbody>
</table>

(a.) These figures include ships on Colonial registers which could be brought to home waters, but they exclude such ships as, for physical reasons (e.g., employment on the Great Lakes, shut in Black Sea, &c.), cannot be so utilised.

(b.) Actual figures for January, February, and March; estimates thereafter.

(c.) Actual figures for January, February, and March; estimates thereafter.

(d.) Average figures for 1915-16.

(e.) Estimates

(f.) Actual contracts.

(g.) It is tentatively assumed that 80 per cent. of the damaged ships come back into use in the fourth month after the report of damage.
<table>
<thead>
<tr>
<th>Month</th>
<th>Available Tonnage</th>
<th>(1.) Tons Cargo, dead-weight, brought in by British Ships</th>
<th>(2.) Tons Cargo, dead-weight, brought in by Foreign Ships</th>
<th>(3.) Total Imports</th>
<th>(4.) Total Imports under Scheme of Shortened Routes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1917</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>January</td>
<td>8,994,000</td>
<td>2,152,000</td>
<td>578,000</td>
<td>3,000,000</td>
<td>2,000,000</td>
</tr>
<tr>
<td>February</td>
<td>8,291,000</td>
<td>2,055,000</td>
<td>445,000</td>
<td>2,500,000</td>
<td>2,500,000</td>
</tr>
<tr>
<td>March</td>
<td>7,908,000</td>
<td>2,071,000</td>
<td>429,000</td>
<td>2,000,000</td>
<td>2,200,000</td>
</tr>
<tr>
<td>April</td>
<td>7,417,000</td>
<td>1,940,000</td>
<td>400,000</td>
<td>2,340,000</td>
<td>2,240,000</td>
</tr>
<tr>
<td>May</td>
<td>7,207,000</td>
<td>1,850,000</td>
<td>400,000</td>
<td>2,290,000</td>
<td>2,290,000</td>
</tr>
<tr>
<td>June</td>
<td>6,763,000</td>
<td>1,760,000</td>
<td>400,000</td>
<td>2,160,000</td>
<td>2,160,000</td>
</tr>
<tr>
<td>July</td>
<td>6,190,000</td>
<td>1,520,000</td>
<td>350,000</td>
<td>1,970,000</td>
<td>2,010,000</td>
</tr>
<tr>
<td>August</td>
<td>5,726,000</td>
<td>1,500,000</td>
<td>350,000</td>
<td>1,850,000</td>
<td>2,550,000</td>
</tr>
<tr>
<td>September</td>
<td>5,364,000</td>
<td>1,410,000</td>
<td>350,000</td>
<td>1,760,000</td>
<td>2,230,000</td>
</tr>
<tr>
<td>October</td>
<td>5,148,000</td>
<td>1,350,000</td>
<td>350,000</td>
<td>1,700,000</td>
<td>2,150,000</td>
</tr>
<tr>
<td>November</td>
<td>4,900,000</td>
<td>1,310,000</td>
<td>350,000</td>
<td>1,660,000</td>
<td>2,100,000</td>
</tr>
<tr>
<td>December</td>
<td>4,312,000</td>
<td>1,260,000</td>
<td>350,000</td>
<td>1,610,000</td>
<td>2,030,000</td>
</tr>
<tr>
<td>Totals for 1917</td>
<td></td>
<td>20,288,000</td>
<td>5,058,000</td>
<td>25,340,000</td>
<td>28,160,000</td>
</tr>
</tbody>
</table>

(a.) For January, February, and March the figures are nearly correct, but it should be noted that an uncertain quantity of Government imports is excluded. For April and after the figures are proportions based on the available tonnage.

(b.) Actual figures (nearly) for January, February, and March; thereafter the estimates are purely conjectural.

(c.) These figures are exclusive of the uncertain quantity of Government imports referred to in note (a).

(d.) In this column the imports by British ships are assumed to be increased after June in the proportion of 3:4 by reason of shortened voyages.