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COMMITTEE ON SAFETY OF NAVIGATION.

L.S.A.S.

LIFE SAVING APPLIANCES

REPORT

AND

MINUTES OF PROCEEDINGS.
CONFÉRENCE INTERNATIONALE DE LONDRES SUR LA SÉCURITÉ DES TRANSPORTS MARITIMES.

Rapport de la Commission des Engins de Sauvetage.

1. La Commission, telle qu'elle se trouvait constituée au début, comprenait des membres des Délégations suivantes : Allemagne, États-Unis d'Amérique, Autriche-Hongrie, Belgique, Canada, Danemark, France, Grande-Bretagne, Italie, Norvège, Pays-Bas, Russie, Suède et Nouvelle-Zélande. La Commission ainsi constituée et à laquelle sont venus s'ajoindre divers autres membres des Délégations indiquées ci-dessus a tenu dix-huit séances, au cours desquelles elle a examiné avec soin les questions qui lui avaient été soumises par la Conférence. Elle a l'honneur de présenter à cette dernière le rapport suivant.

2. La Commission a l'honneur de proposer à la Conférence d'adopter les règles ci-après, relatives aux sujets visés dans les paragraphes 9 à 14 des "Questions posées à la Conférence." La Commission, en faisant cette proposition, suppose que les règles suivantes seront appliquées à tous les vapeurs transportant plus de douze passagers et faisant des voyages océaniques entre un port situé dans un État contractant et un port situé en dehors de cet État, et qu'on laissera à chaque État contractant la faculté de définir, dans des limites raisonnables, les voyages qu'il juge ne pas être océaniques.

Règles relatives aux Engins de Sauvetage.

RÈGLE 1.—TYPES D’EMBARCATIONS ET DE RADEAUX À ACCEPTER.

(a.) Classification des Embarcations.

Au point de vue des règles imposées, les embarcations seront classées comme suit :

Classe 1.

1 A. Embarcations de sauvetage ouvertes avec flotteurs intérieurs seulement.
Ces embarcations seront munies de caissons à air efficaces, dont le volume total sera égal à 10 pour cent au moins de la capacité de l’embarcation.
Dans le cas où l’embarcation sera en métal, la capacité des caissons à air devra être augmentée dans des proportions suffisantes pour lui donner une flottabilité au moins égale à celle de l’embarcation en bois.

1 B. Embarcations de sauvetage ouvertes avec flotteurs intérieurs et extérieurs.
Ces embarcations seront munies de caissons à air efficaces dont le volume total sera égal à 7,5 pour cent au moins de la capacité de l’embarcation.
Les flotteurs extérieurs pourront être constitués par du liège ou d’autres matières d’efficacité équivalente. Mais la flottabilité ne pourra pas être réalisée à l’aide de jones,
de liège ou autres matières en copeaux, en petits morceaux ou en grains, de dispositifs exigeant un gonflement par l'air.

Lorsque les flotteurs seront en liège, leur volume ne sera pas inférieur cent de la capacité de l'embarcation. Lorsqu'ils ne seront pas en liège, il devra assurer une flottabilité et une stabilité égales à celles que l'on obtient des flotteurs en liège. Si l'embarcation de sauvetage est en métal, la intérieure et extérieure sera augmentée comme il est dit pour le cas de la Cl.

1 c. Embarcations-pontons de sauvetage dans lesquelles les occupants, logés sous un pont et qui sont munies, au-dessus de la surface en charge, dont la surface est de 30 pour cent au moins de celle du pont ; ces embarcations munies de fargues fixes, étanches, et ayant le franc-bord indiqué ci-dessous.

Classe 2.

2 a. Embarcations de sauvetage ouvertes ayant la partie supérieure repliable. Une embarcation de ce type doit avoir des caissons à air efficaces, capacité d'au moins 0,043 mètre cube (1,5 pied cube) pour chacun des occupants de l'embarcation est supposée devoir contenir et, en outre, une flottabilité exté si elle est obtenue par du liège, doit être d'au moins 0,006 mètre cube (0,2 pour chaque occupant.

2 b. Embarcations-pontons de sauvetage ayant toutes les caractéristiques 1 c, sauf que les fargues, seront repliables.

2 c. Embarcations-pontons de sauvetage dans lesquelles les occupants n logés sous le pont, du type à pont continu, pourvues de fargues repliables et franc-bord indiqué ci-dessous.

(b.) Embarcations à Moteur.

Une embarcation à moteur peut être admise comme embarcation de sau elle satisfait aux exigences stipulées au sujet des embarcations de sauvet Classe 1 ; toutefois l'espace occupé par les engins mécaniques sera déduit de la brute de l'embarcation pour le calcul du nombre de personnes qu'elle est à porter.

Il sera tenu compte dans le calcul du volume des flotteurs de la différenc poids des personnes ainsi supprimées et le poids du moteur.

Les embarcations à moteur admises comme embarcations de sauvetage autorisées qu'en nombre limité.

(c.) Radeaux-Pontons.

Un radeau-ponton devra, pour être approuvé, satisfaire aux conditions sui

1. Il sera semblable sur l'une ou sur l'autre face et pourvu sur chaqu un fargue en bois, en toile ou autre matière convenable ; ces fargues être repliables.

2. Il sera de dimensions, d’une solidité et d’un poids tels qu’il puisse être sans avoir recours à des engins mécaniques et qu’il puisse être lancé de nécessité, du pont même du navire.

3. Il sera muni d’au moins 0,085 mètre cube (3 pieds cubes) de caisse ou de flotteurs équivalents, pour chaque personne qu’il sera a porté.

4. La superficie du pont ne sera pas inférieure à 0,372 mètre carré (4 pied par occupant et le pont ne sera pas élevé de moins de 150 millim. (t au-dessus de la flottaison quand il est chargé.

5. Les caissons à air, ou les flotteurs équivalents, seront disposés aussi possible des flancs du radeau.

(d.) Conditions générales à observer dans la Construction de toutes les Embar
(a.) **Conditions générales à observer dans la Construction des Embarcations de Sauvetage ouvertes.**

Les embarcations de sauvetage ouvertes des Classes 1 A et 1 B auront une tonture moyenne correspondant à 4 pour cent, au moins, de leur longueur.

Les caissons à air des embarcations de sauvetage ouvertes de la Classe 1 seront disposés de long des flancs de l’embarcation ; ils pourront également être placés aux extrémités, mais non dans le fond.

(f.) **Conditions générales à observer dans la Construction des Embarcations-Ponton de Sauvetage des Classes 1 et 2.**

Les embarcations-pontons de sauvetage pourront être construites en bois ou en métal, mais si les embarcations des Classes 1 c, 2 b ou 2 c, sont construites en bois, les fonds et le pont seront formés de deux bordés juxtaposés avec interposition d’une matière textile.

Les embarcations-pontons de sauvetage construites en métal seront divisées en compartiments étanches avec un dispositif d’accès à chaque compartiment.

(g.) **Embarcations-Pontons de Sauvetage—Installation pour l’Évacuation de l’Eau du Pont.**

Les embarcations-pontons de sauvetage de toutes les classes seront pourvues de moyens efficaces pour évacuer rapidement l’eau du pont. Les orifices à cet effet doivent être tels que l’eau ne puisse pénétrer dans l’embarcation quand ils sont submergés par intermittences. Le nombre et les dimensions de ces orifices seront déterminés par une expérience spéciale pour les embarcations de chaque classe.

Les dispositifs seront tels que dans le cas d’une embarcation de sauvetage de 8,50 mètres [28 pieds] de longueur, un poids de 2032 kilog. [deux tonnes anglaises] d’eau au moins pourra être évacué du pont dans un laps de temps n’excédant pas les chiffres suivants :

<table>
<thead>
<tr>
<th>Classe</th>
<th>Temps</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 c...</td>
<td>60 secondes</td>
</tr>
<tr>
<td>2 b...</td>
<td>60 &quot;</td>
</tr>
<tr>
<td>2 c...</td>
<td>20 &quot;</td>
</tr>
</tbody>
</table>

Lors des expériences de vérification, l’embarcation de sauvetage sera chargée au moyen de poids en fer représentant le poids total de l’équipement et de toutes les personnes que l’embarcation est admissible à porter. Pour les embarcations d’une longueur différente de 8,50 mètres [28 pieds], la quantité d’eau à évacuer dans le temps spécifié ci-dessus, sera calculée proportionnellement à la longueur.

(h.) **Franc-bord des Embarcations-Ponton de Sauvetage.**

Le franc-bord des embarcations de sauvetage des Classes 1 c et 2 b sera tel qu’il assure une réserve de flottaison d’au moins 35 pour cent.

Le point le plus bas du pont dans le puits ne sera pas à moins de 0,5 pour cent de la longueur de l’embarcation au-dessus de la flottaison en charge, et le point le plus bas du pont aux extrémités du puits ne sera pas à moins de 1,5 pour cent de la longueur de l’embarcation au-dessus de la flottaison.

Le franc-bord d'une embarcation de sauvetage à pont continu de la Classe 2 ne sera pas inférieur au chiffre indiqué dans la table ci-dessous. Les chiffres de cette table seront appliqués sans corrections, dans le cas d’embarcations ayant une tonture moyenne égale à 3 pour cent de leur longueur ; pour l’emploi de la table, le creux de l’embarcation sera mesuré verticalement à partir de la face inférieure de la virure de gabord jusqu’au sommet du pont en abord au milieu ; le franc-bord sera mesuré à partir du sommet du pont et en abord au milieu, l’embarcation étant chargée et se trouvant en eau douce.

<table>
<thead>
<tr>
<th>Creux de l’Embarcation</th>
<th>Franc-bord en eau douce</th>
</tr>
</thead>
<tbody>
<tr>
<td>Millim.</td>
<td>Pouces</td>
</tr>
<tr>
<td>810</td>
<td>(12)</td>
</tr>
<tr>
<td>690</td>
<td>(18)</td>
</tr>
<tr>
<td>710</td>
<td>(24)</td>
</tr>
<tr>
<td>740</td>
<td>(30)</td>
</tr>
</tbody>
</table>
Pour les creux intermédiaires le franc-bord sera fixé par interpolation.

La table de franc-bord ci-dessus est établie pour une tonture moyenne de base égale à 3 pour cent de la longueur de l'embarcation ; si la tonture est inférieure à ce chiffre, la différence entre la tonture moyenne exprimée en millimètres [ou pouces] mesurée à l'étrave et à l'étambot, et la tonture moyenne de base établie en millimètres [ou pouces] sera divisée par 7 ; le quotient sera ajouté au franc-bord indiqué dans la table.

Aucune réduction de franc-bord ne sera admise en considération du bouge du pont ni d'une tonture dépassant la tonture de base.

Le franc-bord exigé ne sera pas affecté par la longueur de l'embarcation.

(i.) Autres Types d'Embarcations et de Radeaux.

Des embarcations d'autres types pourront être acceptées comme étant équivalentes aux embarcations de l'un des types indiqués ci-dessus et des radeaux d'autres types pourront être acceptés comme équivalents aux radeaux-pontons décrits ci-dessus, si l'administration intéressée a reconnu par expérience que l'embarcation ou le radeau en question est aussi efficace que l'embarcation ou le radeau pris comme terme de comparaison.

Chaque administration qui aura accepté un type nouveau d'embarcation ou de radeau communiquera aux autres administrations intéressées le détail des essais et, dans le cas d'une embarcation, de la classification, qu'elle aura adoptée.

RÈGLE 2.—FORME, CAPACITÉ DES EMBARCATIONS ET NOMBRE DES OCCUPANTS.

(a.) Capacité des Embarcations ouvertes.

Sous réserve des dispositions indiquées ci-dessous, la capacité des embarcations ouvertes autre que celles de la Classe 2 a sera déterminée à l'aide de la règle de Stirling, les relevés des dimensions étant faits conformément aux règles indiquées dans l'Annexe I, ou par toute autre règle donnant des résultats aussi précis ; mais dans les cas où l'administration aura reconnu que le coefficient de capacité d'une embarcation n'est pas inférieur à 0,6, cette capacité pourra être déterminée en multipliant par 0,6 le produit de la longueur par la largeur et par le creux, ces dimensions étant mesurées comme il est indiqué dans l'Annexe I. Toutefois l'armateur aura le droit, dans tous les cas, d'exiger le mesurage de la capacité par des procédés exacts.

Si la tonture du plat-bord, mesurée en deux points situés à 25 pour cent de la longueur de l'embarcation à chaque extrémité, dépasse 1 pour cent de longueur de la coque, le creux employé pour le calcul de la surface du couple de l'embarcation en ces points, ne dépassera pas le creux pris au milieu, augmenté de 1 pour cent de longueur de l'embarcation.

Si le creux de l'embarcation au milieu dépasse 45 pour cent de la largeur, le creux employé pour le calcul de l'aire du maître couple en ces points ne dépassera pas 45 pour cent de la largeur, et le creux employé pour les sections à 25 pour cent de la longueur de l'embarcation à chaque extrémité ne dépassera pas 45 pour cent de la largeur au milieu augmentée de 1 pour cent de la longueur de l'embarcation, ou bien ne dépassera pas le creux réel de l'embarcation en ces points, le chiffre choisi devant être le plus petit des deux.

Dans le cas d'une embarcation à arrière carré, la section la plus rapprochée de l'arrière devra être calculée comme si l'arrière de l'embarcation était pointu.

Sous réserve des dispositions ci-après, le nombre des occupants admis dans le cas d'une embarcation de sauvetage ouverte de la Classe 1 a sera établi en divisant par 0,263 sa capacité en mètres cubes, et le nombre d'occupants dans le cas d'une embarcation de sauvetage de la Classe 1 b sera calculé en divisant sa capacité en mètres cubes par 0,255.

Le nombre d'occupants admis ne dépassera en aucun cas le nombre effectif de places assises convenables. Les personnes assises ne doivent entraver en rien le maniement normal des avirons.

Si la profondeur d'une embarcation dépasse 1,22 mètres [4 pieds], le nombre d'occupants établi d'après la règle précédente ne devra être arrêté définitivement qu'après un essai fait à flot avec le nombre de personnes à bord, toutes étant revêtues
de ceintures de sauvetage, mais jusqu'à ce que cette expérience ait été faite le nombre d'occupants admis sera réduit dans le rapport du chiffre de 1,22 mètres [4 pieds] au creux réel de l'embarcation.

Dans une embarcation ouverte aux extrémités très fines le nombre d'occupants sera limité à l'aide d'une formule appropriée, et une autre formule appropriée devra être établie dans le but d'empêcher que des embarcations ouvertes aient des formes trop pleines.

(b.) *Embarcation de Sauvetage ouverte de la Classe 2 A.*

La surface limitée par l'intérieur du plat-bord de l'embarcation sera déterminée suivant les règles indiquées dans l'Annexe I ou par toute autre règle donnant des résultats aussi précis.

Sous réserve des dispositions ci-après, le nombre d'occupants autorisé pour une embarcation de ce type, sera calculé en divisant la surface en mètres carrés par 0,325.

Le nombre d'occupants admis n'excèdera pas le nombre effectif de places assises.

Le franc-bord des embarcations de sauvetage de la Classe 2 A ne sera pas inférieur à celui qui est indiqué dans la table ci-dessous. Cette table sera appliquée sans corrections, dans le cas d'embarcations ayant une tonture moyenne correspondant à 3 pour cent de la longueur.

Le franc-bord sera mesuré verticalement, sur les flancs, au milieu de la longueur de l'embarcation, jusqu'au sommet de la partie non repliable de la coque, l'embarcation étant chargée et flottant en eau douce:

<table>
<thead>
<tr>
<th>Longueur de l'embarcation.</th>
<th>Mètres</th>
<th>Pieds</th>
<th>Millimètres</th>
<th>Pouces</th>
</tr>
</thead>
<tbody>
<tr>
<td>7·30</td>
<td>(25·9)</td>
<td></td>
<td>200</td>
<td>(7·87)</td>
</tr>
<tr>
<td>8·50</td>
<td>(27·8)</td>
<td></td>
<td>225</td>
<td>(8·86)</td>
</tr>
<tr>
<td>9·13</td>
<td>(30·0)</td>
<td></td>
<td>250</td>
<td>(9·84)</td>
</tr>
</tbody>
</table>

Pour les creux intermédiaires le franc-bord sera déterminé par interpolation.

La capacité en mètres cubes d'une embarcation de ce type correspondra au nombre d'occupants calculé par la règle ci-dessus multiplié par 0,283.

(c.) *Embarcations-Pontons de Sauvetage des Classes 1 C, 2 A, 2 C.*

Le nombre d'occupants admis pour les embarcations de cette catégorie sera subordonné à la condition qu'il y aura des places assises pour toutes les personnes sans que le maniement normal des aivrons s'en trouve entravé. Dans les embarcations des Classes 1 C et 2 A, la partie élevée du pont en bord du puits peut être considérée comme constituant des places assises.

*Classe 1 C et 2 A.*—Le nombre d'occupants admis ne dépassera pas le nombre de personnes que l'embarcation peut porter sous la réserve du franc-bord indiqué dans la règle 1 (h), en admettant 65 kilog. au moins [140 livres] pour le poids de chaque occupant. La surface du pont sera mesurée d'après les règles indiquées dans l'Annexe I, ou par toute autre règle donnant des résultats aussi précis.

Sous réserve des conditions indiquées ci-dessus, le nombre d'occupants admis sera calculé en divisant par 0,302 la surface du pont exprimée en mètres carrés. Toutefois si l'administration reconnaît par expérience directe que les installations de places assises permet de loger un plus grand nombre de personnes, le chiffre de 0,302 pourra être diminué, sans pouvoir être cependant inférieur à 0,279. Dans ce cas l'administration intéressée devra communiquer aux autres administrations le dessin des embarcations et les résultats des essais.

*Classe 2 C.*—Le nombre d'occupants admis ne dépassera pas le nombre de personnes que l'embarcation peut porter sous réserve du franc-bord indiqué dans la règle 1, en admettant 65 kilog. au moins [140 livres] pour le poids de chaque occupant.

Le nombre d'occupants admis sera calculé de la même manière que dans le cas des Classes 1 C et 2 A, sauf que la surface du pont exprimée en mètres carrés sera divisée par 0,325.

La capacité en mètres cubes des embarcations-ponton de sauvetage de toutes les catégories sera supposée être égale au nombre d'occupants établi par la méthode précédente, multiplié par 0,283.

* Chaque administration déterminera ses formules.
(d.) **Règles générales.**

Toutes les embarcations seront marquées correctement et à la satisfaction de l'autorité chargée de l'inspection au moyen de caractères permanents et faciles à distinguer indiquant les dimensions de l'embarcation et le nombre d'occupants accepté.

Dans les expériences pour l'évaluation du nombre de personnes admises à prendre place dans une embarcation, chaque unité correspondra à une personne adulte et ayant une ceinture de sauvetage en place sur elle. On devra réserver, dans tous les cas, la place nécessaire pour l'usage normal des avironns.

Chacune des embarcations prescrites devra avoir une capacité de 3,5 mètres cubes [125 pieds cubes] au moins.

Dans toutes les embarcations, deux enfants âgés de moins de 12 ans seront comptés pour un adulte.

**RÈGLE 3. — INSTALLATIONS À PRÉVOIR POUR LES EMBARCATIONS.**

(a.) Des bossoirs devront être prévus en conformité des indications données dans la Table I, ci-dessous, chaque paire de bossoirs devant avoir une embarcation de la Classe I, étant entendu qu'aucun navire ne sera tenu d'avoir une quantité de paires de bossoirs, qui dépasse le nombre d'embarcations nécessaire pour l'embarquement de tout le monde.

**Table I.**

<table>
<thead>
<tr>
<th>Longueur enregistrée du Navire</th>
<th>Nombre Minimum de Jeux de Bossoirs</th>
<th>Nombre Minimum d'Embarcations ouvertes</th>
</tr>
</thead>
<tbody>
<tr>
<td>en métrés</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Au-dessous du 48,8 m.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>46,8 et au-dessous de 57,3 m.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>57,9 m</td>
<td>67,1 m</td>
<td>190 m</td>
</tr>
<tr>
<td>67,1 m</td>
<td>74,7 m</td>
<td>220 m</td>
</tr>
<tr>
<td>74,7 m</td>
<td>82,3 m</td>
<td>245 m</td>
</tr>
<tr>
<td>82,3 m</td>
<td>91,4 m</td>
<td>270 m</td>
</tr>
<tr>
<td>91,4 m</td>
<td>100,6 m</td>
<td>300 m</td>
</tr>
<tr>
<td>100,6 m</td>
<td>112,8 m</td>
<td>330 m</td>
</tr>
<tr>
<td>112,8 m</td>
<td>125,0 m</td>
<td>370 m</td>
</tr>
<tr>
<td>125,0 m</td>
<td>140,2 m</td>
<td>410 m</td>
</tr>
<tr>
<td>140,2 m</td>
<td>155,5 m</td>
<td>460 m</td>
</tr>
<tr>
<td>155,5 m</td>
<td>176,8 m</td>
<td>520 m</td>
</tr>
<tr>
<td>176,8 m</td>
<td>195,1 m</td>
<td>580 m</td>
</tr>
<tr>
<td>195,1 m</td>
<td>213,4 m</td>
<td>640 m</td>
</tr>
<tr>
<td>213,4 m</td>
<td>231,5 m</td>
<td>700 m</td>
</tr>
<tr>
<td>231,5 m</td>
<td>251,6 m</td>
<td>760 m</td>
</tr>
<tr>
<td>251,6 m</td>
<td>271,3 m</td>
<td>820 m</td>
</tr>
<tr>
<td>271,3 m</td>
<td>292,6 m</td>
<td>890 m</td>
</tr>
<tr>
<td>292,6 m</td>
<td>313,9 m</td>
<td>1050 m</td>
</tr>
</tbody>
</table>

Pour les navires dont la longueur dépassera 313,90 mètres [1030 pieds], l'administration intéressée aura à prescrire pour chaque cas qui se présentera le nombre minimum de jeux de bossoirs et d'embarcations ouvertes ; elle devra notifier aux autres administrations les décisions prises.

Le nombre total d'embarcations de sauvetage ouvertes crochées sous bossoirs ne doit pas être inférieur à celui qui se trouve indiqué dans la 3e colonne de la table ci-dessus.

Dans le cas où il ne serait ni pratique, ni raisonnable de placer à bord d'un navire le nombre de jeux de bossoirs indiqué dans la 2e colonne de la table ci-dessus, l'administration intéressée pourra approuver, pour le navire en question, un nombre plus petit de jeux de bossoirs, sous la réserve que ce nombre de bossoirs ou d'autres engins d'efficacité égale ne soit pas inférieur à celui qui est indiqué dans la 3e colonne de la table. Le seul cas dans lequel ce dernier nombre pourra être réduit est celui où une large proportion du nombre total de personnes embarquées à bord du navire, trouverait place dans des embarcations dont la longueur excède 15,2 mètres [50 pieds], et où l'administration s'est assurée que ce dispositif est à tous égards aussi efficaces.

Dans le cas où le nombre de jeux de bossoirs ou d'autres engins également efficaces serait inférieur aux chiffres stipulés dans la 2e colonne de la table, l'armateur du navire
saurait tenu de démontrer par une expérience effective, faite en présence d’un inspecteur de l’administration intéressée, que les arrangements sont tels que toutes les embarcations peuvent être mises à l’eau en stricte observance des règles de base indiquées ci-dessous et dans une période de temps déterminée suivant une formule appropriée.

Les conditions de l’essai seront les suivantes :

1. Le navire sera droit et en eau calme ;
2. La durée de la manœuvre sera la période de temps comprise entre le moment où l’on commencera à enlever des préalables d’embarcation ou bien où l’on fera toute autre opération nécessaire pour préparer la mise à l’eau et le moment où la dernière embarcation ou le dernier radeau se trouvera à flot.
3. Le nombre de personnes employées pour la totalité de l’opération ne devra pas dépasser le nombre de canotiers que le navire portera lorsqu’il sera en service normal.
4. Les embarcations, pendant qu’où les amène, doivent avoir à bord leur équipement complet et au moins deux personnes.

(b.) Dans le cas où les embarcations de sauvetage sous bossoirs n’offriraient pas assez de places pour tout le monde, il sera ajouté des embarcations de sauvetage additionnelles dont le nombre et la capacité seront tels que la capacité totale des embarcations sous bossoirs et des embarcations additionnelles, ne sera pas inférieure aux chiffres indiqués dans la table suivante :

**Tableau II.**

<table>
<thead>
<tr>
<th>Longueur enregistrée du Navire</th>
<th>Nombre minimum de Jeux de Bossoirs</th>
<th>Capacité totale minimum des Embarcations de Sauvetage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>en mètres</td>
<td>in pieds</td>
</tr>
<tr>
<td>30,5 et au-dessous de 35,6</td>
<td>2</td>
<td>27,73</td>
</tr>
<tr>
<td>35,6</td>
<td>2</td>
<td>34,52</td>
</tr>
<tr>
<td>42,7</td>
<td>2</td>
<td>43,86</td>
</tr>
<tr>
<td>48,8</td>
<td>3</td>
<td>55,20</td>
</tr>
<tr>
<td>53,3</td>
<td>3</td>
<td>67,64</td>
</tr>
<tr>
<td>59,9</td>
<td>3</td>
<td>77,84</td>
</tr>
<tr>
<td>62,3</td>
<td>4</td>
<td>94,24</td>
</tr>
<tr>
<td>67,1</td>
<td>4</td>
<td>110,36</td>
</tr>
<tr>
<td>70,1</td>
<td>5</td>
<td>126,03</td>
</tr>
<tr>
<td>74,7</td>
<td>5</td>
<td>144,32</td>
</tr>
<tr>
<td>77,7</td>
<td>6</td>
<td>159,60</td>
</tr>
<tr>
<td>82,3</td>
<td>6</td>
<td>175,17</td>
</tr>
<tr>
<td>86,9</td>
<td>8</td>
<td>196,10</td>
</tr>
<tr>
<td>91,4</td>
<td>8</td>
<td>213,64</td>
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<tr>
<td>96,0</td>
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<td>234,60</td>
</tr>
<tr>
<td>100,5</td>
<td>9</td>
<td>294,68</td>
</tr>
<tr>
<td>106,7</td>
<td>9</td>
<td>272,50</td>
</tr>
<tr>
<td>112,8</td>
<td>10</td>
<td>301,40</td>
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<tr>
<td>118,9</td>
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<td>331,10</td>
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<tr>
<td>125,0</td>
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<td>389,60</td>
</tr>
<tr>
<td>132,6</td>
<td>12</td>
<td>408,36</td>
</tr>
<tr>
<td>140,2</td>
<td>14</td>
<td>456,52</td>
</tr>
<tr>
<td>149,4</td>
<td>14</td>
<td>489,85</td>
</tr>
<tr>
<td>158,5</td>
<td>16</td>
<td>529,75</td>
</tr>
<tr>
<td>167,6</td>
<td>16</td>
<td>572,00</td>
</tr>
<tr>
<td>176,8</td>
<td>16</td>
<td>619,75</td>
</tr>
<tr>
<td>185,9</td>
<td>18</td>
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<tr>
<td>195,1</td>
<td>20</td>
<td>717,40</td>
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<tr>
<td>204,2</td>
<td>20</td>
<td>765,50</td>
</tr>
<tr>
<td>213,4</td>
<td>20</td>
<td>806,80</td>
</tr>
<tr>
<td>222,5</td>
<td>22</td>
<td>834,10</td>
</tr>
<tr>
<td>231,6</td>
<td>24</td>
<td>906,40</td>
</tr>
<tr>
<td>240,8</td>
<td>24</td>
<td>972,05</td>
</tr>
<tr>
<td>249,9</td>
<td>26</td>
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</tr>
<tr>
<td>259,5</td>
<td>26</td>
<td>1086,50</td>
</tr>
<tr>
<td>271,3</td>
<td>28</td>
<td>1150,20</td>
</tr>
<tr>
<td>283,9</td>
<td>28</td>
<td>1241,70</td>
</tr>
<tr>
<td>292,6</td>
<td>30</td>
<td>1311,60</td>
</tr>
<tr>
<td>303,3</td>
<td>30</td>
<td>1379,50</td>
</tr>
</tbody>
</table>

*Chaque administration déterminera sa formule, et communiquera ses décisions aux autres administrations.*
Les embarcations supplémentaires pourront être soit de la Classe 1 soit de la Classe 2.

Dans le cas où les embarcations de sauvetage mentionnées ci-dessus n’auraient pas assez de places pour 75 pour cent au moins des personnes embarquées, on mettra à bord des embarcations de sauvetage additionnelles de la Classe 1 ou de la Classe 2, en nombre suffisant pour fournir de la place pour 75 pour cent au moins de tout le personnel à bord.

(c.) Il sera prévu de la place pour tout le monde soit à bord d’embarcations de sauvetage de la Classe 1 ou Classe 2 soit sur des radeaux-pontons de type et de construction approuvés.

(d.) Le nombre et la capacité des embarcations de sauvetage n’auront, en aucun cas, à excéder ce qui est nécessaire pour loger tout le monde.

(e.) Ne seront pas admises à faire partie de l’équipement réservé pour le sauvetage les embarcations qui n’acquièrent la flottabilité nécessaire que moyennant un ajustement préalable de l’une des parties principales de leur coque.

RÈGLE 4 — ÉQUIPEMENT DES EMBARCATIONS ET DES RADEAUX-PONTONS.

(a.) Chaque embarcation sera équipée comme suit :

1. Un nombre suffisant d’avirons pour la nage en pointe, plus deux avirons de rechange.
2. Un jeu et demi de dames ou de tolets; ainsi que deux tampons pour chaque nable. Les tampons ne seront pas exigés dans le cas où une valve automatique serait installée.
3. Une écorce, un seau en fer galvanisé, un gouvernail avec barre, ou bien un joug pourvu de tire-veilles, une gaffe.
4. Deux hachettes.
5. Un fanal convenable.
6. Un ou plusieurs mâts ainsi qu’une voile au moins, en bon état, chaque voile étant convenablement gréée ; cette règle ne s’appliquera pas au cas d’une embarcation à moteur de type approuvé.
7. Un compas convenable.

Dans le cas des navires pourvus d’une installation de télégraphie sans fil et faisant transport des passagers dans l’Atlantique Nord, un nombre limité d’embarcations seulement devra être pourvu de compas, de mâts et de voiles.

Les embarcations-pontons ne devront pas être pourvues de nables ; chaque embarcation de ce type sera pourvue de deux pompes de cale.

(b.) Chaque radeau-ponton sera équipé comme il suit :

1. Quatre avirons.
2. Cinq tolets de nage.
3. Un feu à allumage automatique.

Les navires portant les radeaux devront avoir, immédiatement disponibles, un certain nombre d’échelles en cordes destinées à embarquer les personnes sur les radeaux.

(c.) En complément de ce qui précède, chaque embarcation ou radeau-ponton sera pourvu de :

1. Une filière extérieure en guirlande.
2. Une ancre flottante.
3. Une bosse.
5. Un récipient étanche contenant 1 kilog. [2 livres] de biscuit pour chaque occupant.
7. Un certain nombre de feux rouges à allumage automatique et une boîte (étanche) d’allumettes.

(d.) Tout objet mobile d’équipement sera solidement attaché à l’embarcation ou au radeau.
RÈGLE 5.—INSTALLATION ET MISE À L’EAU DES EMBARCATIONS ET DES RADEAUX.

(a.) Toutes les embarcations et tous les radeaux seront placés de manière à assurer leur mise à l’eau dans le plus court espace de temps possible, et leur installation sera telle que dans des conditions défavorables de bande et d’assiette, il soit possible, au point de vue de la manœuvre des embarcations et des radeaux, d’embarquer un nombre aussi élevé que possible de personnes.

Des dispositions seront prises pour permettre soit à l’aide d’installations pour transporter sur le pont, d’un bord à l’autre les embarcations, soit en plaçant en rangs en travers du pont un certain nombre des embarcations additionnelles, soit par tout autre moyen également efficace, de mettre à l’eau un nombre d’embarcations ou de radeaux aussi élevé que possible de l’un ou l’autre bord.

Les bossoirs, ou autres installations destinées à amener les embarcations, seront installés sur un ou sur plusieurs ponts dans une position telle que les embarcations puissent être efficacement mises à l’eau. Il ne devra pas y avoir de bossoirs dans la partie avant du bateau. Mais il sera permis d’en mettre à tous les autres emplacements à bord, pourvu qu’il n’en résulte pas, au moment de la mise à l’eau, de risques dangereux de contact avec les propulseurs.

Dans le cas où des embarcations sont installées sur plus d’un pont, des dispositions seront prises pour que l’embarcation du pont inférieur ne puisse être rencontrée par celle descendue du pont au-dessus.

(b.) Les bossoirs auront la résistance voulue pour permettre d’amener les embarcations avec le nombre complet des occupants et de l’armement, même dans le cas où la bande constante du navire serait de 15 degrés. Les bossoirs seront pourvus d’installations de puissance suffisante pour assurer la mise en dehors de l’embarcation avec la bande maximum permettant encore de mettre l’embarcation à l’eau, sur le navire considéré.

Dans le cas où une même paire de bossoirs desservirait plus d’une embarcation, en devra prévoir des dispositions empêchant les garants de s’entremêler lors de la remontée.

(c.) Tous appareils peuvent être acceptés au lieu de bossoirs ou de jeux de bossoirs si l’administration a acquis la preuve, à la suite d’expériences effectives, que les appareils en question réunissent des conditions aussi satisfaisantes que les bossoirs pour effectuer la mise à l’eau des embarcations.

Toute administration qui acceptera un nouveau type d’appareils dans le sens indiqué ci-dessus, transmettra aux autres administrations intéressées des indications détaillées au sujet de leur installation ainsi que des essais auxquels ils auront été soumis.

RÈGLE 6.—BOUÉES ET CEINTURES DE SAUVEUR.

(a.) Sera défini comme “ceinture de sauvetage de modèle approuvé” une ceinture de construction et de composition approuvées capable de flotter en eau douce pendant vingt-quatre heures, en supportant 6,8 kilog. (15 livres) de fer.

Aucune ceinture dont la flottabilité est obtenue par le moyen de compartiments à l’air ne pourra être acceptée.

Il y aura, pour toute personne embarquée une ceinture ou un autre engin de flottabilité égal et susceptible de s’adapter au corps.

Il y aura, en supplément, à bord un nombre suffisant de ceintures de sauvetage appropriées à la taille des enfants.

(b.) Sera défini “bouée de sauvetage de modèle approuvé” :—

1. Une bouée confectionnée avec du liège massif, capable de flotter pendant vingt-quatre heures, au moins, en eau douce, en supportant 14 kilog. au moins [31 livres] de fer ;

2. Une solide bouée de tout autre type et matière approuvées, capable de flotter pendant vingt-quatre heures en eau douce, supportant 14 kilog. [31 livres] de fer, à l’exclusion de tout remplissage composé de joncs, de liège en copeaux, en graines ou d’autres substances en rognures ou sans cohésion, ou de toute disposition dans laquelle, si la flottabilité de l’engin est obtenue par le moyen d’air, un gonfllement préalable est nécessaire.

Il devra y avoir douze bouées de sauvetage au moins, de modèle approuvé, sur les navires de moins de 122 mètres (400 pieds) de longueur, et dix-huit sur ceux de plus de 122 mètres (400 pieds) et de moins de 183 mètres (600 pieds) ; vingt-quatre sur ceux

[1244—78]
de plus de 183 mètres (600 pieds) et de moins de 244 mètres (800 pieds) ; trente sur les
navires de 244 mètres (800 pieds) et plus.
(c) Toutes les bouées seront pourvues de guirlandes solidement amarrées, et une
bouée au moins, de chaque bord, sera pourvue d’une ligne de sauvetage de 27,43 mètres
(15 brasses), au moins de longueur. La moitié au moins du nombre de bouées imposé
à chaque navire et jamais moins de six dans aucun cas, devront avoir dans leur
voisinnage, avec moyen de les y fixer, des feux de bouée automatiques, efficaces, et ne
pouvant être éteints par l’eau.
(d) Toutes les bouées, ainsi que les ceintures de sauvetage, seront placées de manière
dans la portée de toutes les personnes embarquées. Leur
position sera nettement indiquée de manière à être connue des intéressés. Les bouées
de sauvetage ne seront pas attachées de manière permanente, mais seront au contraire
toujours prêtes à être détachées.

Annexe I.

1.—Embarnations de Sauvetage Ouvertes.

Le volume des embarcations ouvertes, autres que celles de la Classe 2 A, sera déter-
miné suivant les règles de Stirling, de la manière suivante :

(1.) Longueur.—Mesurer la longueur de l’embarcation suivant une ligne droite
menée de l’intérieur du bordé en bois ou en tôle, à l’étrave, du point correspondant de
l’étambot, ou bien, dans le cas d’une embarcation à arrière carré, à la face intérieure du
tableau. Diviser cette longueur en quatre parties égales.
(2.) Aire des Sections transversales.—Ensuite, l’embarcation ayant été suffisamment
dégagée pour faciliter le mesurage des creux et des largueurs, déterminer l’aire des
sections transversales aux trois points de la longueur indiqués ci-dessus :

Mesurer à chaque point de division et suivant une droite menée en travers à
hauteur du plat bord, le creux à l’intérieur du bordé en bois ou en tôle, à toucher la
quille ; diminuer, s’il y a lieu, le creux ainsi obtenu de manière à assurer l’observance de
la règle 2 (a).

Diviser le creux réel ou, s’il y a lieu, le creux réduit, en quatre parties égales,
qui en partant du point inférieur du creux, détermineront successivement les points de
division d’où partiront les mesures de largeur.

Mesurer la largeur horizontale à l’intérieur ou bordé en bois ou du revêtement en
tôle, à chacun des trois points de division et aux points le plus élevé et le plus bas du
creux, ou, s’il y a lieu, du creux réduit ; numéroté successivement ces largeurs à partir
du haut, c’est-à-dire en attribuant le No. 1 à la largeur la plus élevée, et ainsi de suite
jusqu’à la cinquième ou plus petite largeur ; multiplier la seconde ainsi que la quatrième
par quatre, et la troisième par deux ; additionner ces produits, et au résultat ajouter la
première largeur ainsi que la cinquième ; multiplier le chiffre ainsi obtenu par un tiers
de l’intervalle entre les ordonnées. Le produit correspondra à la section transversale.
(3.) Calcul du Volume.—Ayant déterminé de la sorte l’aire des sections transversales
toutes, aux points de division de la longueur, déterminer le volume de l’embarcation
de la manière suivante :

Numéroté successivement les aires 1.* 2., &c., à partir de l’avant, multiplier la
troisième facteur par deux et ajouter quatre fois à ce produit les secondes et quatrièmes
aires ; multiplier la quantité ainsi obtenue par le tiers de la distance entre les sections
transversales, et ce produit donnera le volume de l’embarcation exprimé en pieds cubes,
or bien en mètres cubes, suivant que le pied ou le mètre aura servi d’unité de mesure.

Dans le cas où le volume d’une embarcation ouverte doit être déterminé en
multipliant par 0,6 le produit de la longueur, de la largeur et du creux, on appliquera
les règles suivantes :

(1.) Longueur.—Celle-ci sera mesurée à partir du point d’intersection de l’extérieur
du bordé en bois ou du revêtement en tôle jusqu’au point correspondant de l’étambot,
or, dans le cas d’une embarcation à arrière carré, jusqu’à la face arrière du tableau.

* Le No. 1 étant situé à l’extrême avant et le No. 5 à l’extrémité arrière, leur valeur correspondra à zéro.
(2.) Largeur.—Celle-ci sera mesurée à l’extérieur du bordé en bois ou du revêtement en tôle, au milieu de la longueur ou à l’endroit où l’embarcation atteint sa plus grande largeur.

(3.) Creux.—Celles-ci seront mesurées au milieu de l’embarcation, à partir du dessus du plat-bord jusqu’au dessus du bordé en bois, ou du revêtement en tôle à toucher la quille; toutefois le creux affecté au calcul du volume ne dépassera, en aucun cas, 45 pour cent de la largeur.

2.—EMBARCATIONS-PONTONS DE SAUVETAGE

La surface de pont des embarcations de sauvetage des Classes 1 c, 2 b et 2 c, sera mesurée après la règle suivante:

1. Longueur.—Mesurer la longueur du pont à partir de l’intersection avec l’étrave de l’extérieur du bordé ou du revêtement en tôle, jusqu’au point de l’étambot correspondant. Diviser la longueur en quatre parties égales et subdiviser les parties extrêmes en deux parties égales; mesurer la largeur à l’extérieur du bordé en bois ou en tôle à chaque point de division et de subdivision de la longueur.

2. Calcul de la Surface.—Ayant mesuré les largeurs comme il est dit ci-dessus, calculer la surface de la manière suivante:

Numéroté les largeurs successivement 1, 1 2, 2, 3, 4, 4 2, 5, le No. 1 étant à l’extrémité de la longueur du côté de l’étrave et le No. 5 à l’extrémité du côté de l’étambot.

Multiplier les largeurs intermédiaires 1 2 et 4 2 par 2, la 2e et la 4e par 1, 5, et la 3e par 4. Additionner ces produits et multiplier le total ainsi obtenu par le tiers de l’intervalle de division des largeurs, le produit donnera la surface du pont exprimée en mètres carrés ou en pieds carrés suivant que les mesures auront été prises en mètres ou en pieds.

Nota.—Cette règle doit être suivie également pour calculer la surface du pont entre les plat-bords fixes des embarcations de la Class 2 a.


4. La Conférence recommande d’adopter au sujet des navires existants les résolutions suivantes:

"1. Chaque État contractant s’engage à prescrire, avant le 1er janvier, 1915, qu’il devra y avoir de la place pour tous les occupants aussi bien dans les embarcations que dans les radeaux."

"2. Chaque État contractant s’engage à imposer à tous ses navires existants l’application stricte des règles ci-dessus dans un temps aussi court que possible, et dans tous les cas avant le 30 juin, 1915; chaque administration aura le droit, au cas où l’application stricte de ces règles ne serait ni raisonnable ni praticable, d’admettre, dans les limites de temps indiquées ci-dessus, des tolérances au sujet des points ci-après:

"(a.) Une embarcation ou un radeau accepté précédemment par l’administration d’un État contractant pour le service d’un navire existant sera accepté jusqu’à la date du 1er janvier, 1920, à la place respectivement d’une embarcation ou d’un radeau de sauvetage.

"(b.) Jusqu’à la date du 1er janvier, 1920, on n’obligerà pas à satisfaire à la condition d’après laquelle une embarcation-ponton de sauvetage devra avoir les fonds et le pont composés de deux bordés avec matières textiles interposées, et on n’exigerait pas la réserve complète de franc-bord indiquée pour les embarcations de ce modèle.

"(c.) Dans le cas des navires dont la longueur varie entre 74,70 mètres (245 pieds) et 140,20 mètres (460 pieds), le nombre de jeux de bossoirs imposé par les
règles (voir Table I, colonne 3) pourra être réduit d’une unité et, dans le cas de navires dont la longueur dépasse 140,20 mètres (460 pieds), le nombre de jeux de boissoirs pourra être réduit à raison d’un jeu de chaque bord.

“(d.) On n’obligera pas à satisfaire à la condition d’après laquelle tous boissoirs et embarcations auront la résistance voulue pour qu’on puisse mettre à l’eau les embarcations avec le nombre complet des occupants embarqués ; il en sera de même en ce qui concerne l’installation de mécanismes de force suffisante pour mettre l’embarcation en dehors avec de la bande.”

5. La Commission, sur la demande inastante de la Délegaion française, désire mentionner l’opinion de celle-ci ; le capitaine du navire sera tenu de prendre les dispositions convenables pour installer les passagers dans les embarcations et qu’il devra s’inspirer pour les décisions à prendre des circonstances spéciales qui se présenteront.

MANŒUVRE DES EMBARCATIONS.

6. La Commission recommande l’adoption des règles suivantes :

(a.) Tout navire aura pour chaque embarcation ou radeau des canotiers exercés dont le nombre sera fixé comme il suit :

Pour chaque embarcation ou radeau pouvant porter :

| 60 personnes ou moins | 3 canotiers exercés. |
| 61 à 85 personnes | 4 |
| 86 à 110 | 5 |
| 111 à 160 | 6 |
| 161 à 210 | 7 |

Il y aura un canotier de plus pour chaque supplément de 50 personnes que l’embarcation est autorisée à porter.

(b.) Par canotier exercé, on entend un membre de l’équipage entraîné à mettre en dehors, à amener et à détacher les embarcations de sauvetage, à se servir des avirons et ayant prouvé qu’il possède les qualités voulues pour manier des embarcations de sauvetage. Des canotiers exercés devront être aptes à comprendre les ordres se rapportant au service et aux obligations en matière d’embarcations de sauvetage et à répondre à ces ordres. Des canotiers exercés posséderont un certificat d’aptitude et ce certificat leur sera délivré sous l’autorité de chaque administration.

Note. — Le tableau ci-dessus fixe le nombre total minimum de canotiers exercés à embarquer à bord du navire, mais permet si les circonstances l’exigent, d’attribuer un nombre plus grand ou plus petit de canotiers à une embarcation ou à un radeau déterminés ; la fixation réelle de l’effectif pour chaque embarcation en particulier est laissée à la volonté du capitaine.

ÉQUIPAGES DES NAVIRES.

7. En raison des grandes divergences de vues qui se sont manifestées entre diverses Délegations au sujet de la compétence de la Conférence en ce qui concerne l’équipage du navire lui-même considéré indépendamment de la manœuvre des embarcations, la Commission a adopté la résolution suivante :

“Tout navire à vapeur pratiquant la navigation au long-cours, devra avoir à bord un équipage de nombre et qualité suffisants pour assurer la sauvegarde de la vie humaine en pleine mer.”

EXERCICES D’EMBARCATIONS, EXERCICES D’INCENDIE ET ORGANISATION DE L’ÉQUIPAGE EN VUE DE PARER À DES CIRCONSTANCES IMPRÉVUES.

8. La Commission propose à la Conférence d’adopter les principes suivants :

(a.) Une mission spéciale à remplir dans le cas où des circonstances imprévues se produisent sera dévolue à chaque membre de l’équipage ; un rôle d’appel indiquant les
postes ainsi que les obligations de chaque membre de l'équipage sera dressé avant le commencement de chaque voyage et affiché dans les locaux réservés à l'équipage, ainsi qu'en d'autres endroits en évidence. Un homme capable de conduire le moteur sera désigné pour le service de chaque embarcation à propulsion mécanique.

Le rôle d'appel fixera les devoirs des divers membres de l'équipage en ce qui concerne :

(1.) La mise en dehors des embarcations sous bossoirs ;
(2.) La préparation des autres embarcations ou engins destinés au sauvetage ;
(3.) L'équipement des embarcations en général ;
(4.) La fermeture des portes de cloisons étanches, des soupapes, &c. ;
(5.) Le rassemblement des passagers ; et
(6.) L'extinction de l'incendie.

(b.) Chaque canot ou radeau sera placé sous les ordres d'un officier, sous-officier ou marin qui possédera la liste de son équipe, et aura le devoir de s'assurer que chaque membre de l'équipe connaît ses devoirs et son poste de manœuvre.

(c.) Le rôle de sauvetage indiquera au personnel du service des salons, ses différents devoirs au sujet du rassemblement des passagers en cas d'événements imprévus. Ces devoirs comprendront : l'alerte à donner aux passagers, le soin du veille à ce qu'ils soient vêtus et convenablement munis de leurs gilets de sauvetage ; la réunion en groupes des passagers, la garde des couloirs et des escaliers et, en général, la réglementation des mouvements des passagers.

(d.) Des signaux définis seront prescrits pour l'appel aux postes d'embarcations et d'incendie de tout l'équipage, suivant les indications inscrites sur le rôle d'appel ; une description complète de ces signaux sera faite sur le rôle.

(e.) Avant l'appareillage, le capitaine du navire sera tenu de faire la preuve à l'autorité compétente que le rôle d'appel a été établi pour le navire.

(f.) Un officier ou des officiers spécialement désignés auront le devoir de veiller à ce que les embarcations, radeaux et tous autres engins de sauvetage soient toujours prêts à servir.

(g.) Des appels et des exercices de l'équipage aux postes d'embarcations et d'incendie seront faits, si possible, une fois au moins tous les quinze jours soit dans le port soit à la mer. Les dates en seront inscrites au journal de bord, et il y sera spécialement indiqué toutes les fois que l'obligation en question n'aura pas été remplie, quels que soient les motifs de l'omission.

(h.) Des groupes différents d'embarcations seront examinés lors de chaque exercice ; les exercices et les inspections seront combinés de manière qu'on puisse être certain que toutes les embarcations et radeaux du navire, ainsi que leurs accessoires, sont, en tout temps, prêts à servir et que l'équipage possède la connaissance ainsi que la pratique des devoirs qui lui incombent.

MESURES PREVENTIVES AU SUJET DE L'INCENDIE.—DECOUVERTE ET EXTINCTION DE L'INCENDIE.

9. Quoique le paragraphe 14 des questions soumises à la Conférence limite la question à l'examen des engins destinés à combattre l'incendie, la Commission, sur la proposition de la Délégation des États-Unis, a traité la question des mesures à prendre tant pour empêcher l'incendie que pour le découvrir.

La Commission recommande à la Conférence d'adopter les résolutions suivantes :

MESURES POUR EMPÊCHER L'INCENDIE.

1. Sous réserve du transport à titre de service public et autorisé par l'État d'approvisionnements par la marine ou l'armée ou de l'équipement en signaux de détresse, aucun navire à passagers ne transportera, soit comme lest soit comme cargaison, des marchandises susceptibles, séparément ou collectivement, en raison de leur nature, de leur quantité ou leur mode d'armage de créer un danger pour la vie des passagers ou pour la sécurité du bâtiment.

2. De temps en temps, par le moyen d'avis au public, chaque État fera savoir quelles marchandises sont dangereuses ainsi que les mesures préventives qu'il convient
de prendre au sujet de leur emballage et de leur arrimage. Chaque État assurera, en
ce qui concerne ces marchandises, l'observation des précautions en question.
3. Des dispositions appropriées seront prises pour assurer l'entrée et la sortie des
différents locaux, ponts, &c. Dans tous les locaux éclairés à l'électricité une lampe à
bougie ou à l'huile, fermée à clef, et brûlant toute la nuit, sera placée pour éclairer
les sorties. Peuvent être dispensés de cette dernière exigence les navires sur lesquels
il existe une source d'éclairage indépendante au-dessus du pont complet le plus élevé,
avec un circuit indépendant pour l'éclairage des issues, si ce système d'éclairage de
secours est en service chaque nuit concurremment avec le système général d'éclairage
du navire.

DÉCOUVERTE DE L'INCENDIE.

4. Un service efficace de rondes sera organisé en permanence dans le but de
découvrir promptement tout commencement d'incendie.

EXTINCTION DE L'INCENDIE.

5. Tout navire à vapeur à passagers disposera de trois puissantes pompes à vapeur
où de pompes équivalentes disponibles pour l'extinction de l'incendie si son tonnage
brut dépasse 4000 tonnes, et de deux pompes de ce genre si son tonnage brut est
inférieur à 4000 tonnes. Chacune de ces pompes sera capable de fournir une quantité
suffisante d'eau, distribuée simultanément en deux jets puissants, et cela dans toute
partie du bâtiment.

Les canalisations d'eau seront disposées de manière à permettre de disposer
d'une quantité suffisante d'eau, distribuée en deux jets puissants, pouvant être dirigés
rapidement et simultanément sur toute partie du pont occupée par les passagers ou
par l'équipage, même en cas de fermeture des portes étanches et à incendie. Seront
embarqués en supplément un certain nombre d'extincteurs d'incendie à fluide et
portatifs.

6. Des dispositions seront prises pour pouvoir amener dans tout espace occupé par
le chargement, une quantité suffisante d'eau répartie en deux jets puissants ainsi qu'une
grande quantité de vapeur. Les navires d'un tonnage brut de moins de 1000 tonnes
seront dispensés de l'emploi de la vapeur.

7. Il y aura au moins deux extincteurs d'incendie à fluide dans l'espace réservé
aux machines.

8. Les pompes devront être disposées pour être mises en action, avant la sortie du
navire du port.

9. Les canalisations d'eau et les manches à incendie seront faits de matières
convenables et auront des dimensions largement suffisantes. Les raccords des conduites
seront, sur chaque pont, installés de manière que les manches à incendie puissent leur
être rapidement adaptées.

10. Le navire sera pourvu de deux casques à flamme ainsi que de deux fanaux de
sûreté placés en des endroits différents.

11. Chaque administration aura la faculté d'accepter des extincteurs d'incendie
d'altres types à condition que l'administration intéressée se soit assurée par une
expérience pratique, que l'appareil en question est d'une efficacité au moins égale à
celle des appareils décrits ci-dessus. Toute administration qui acceptera des types
nouveaux renseignera les autres administrations au sujet de la disposition de l'appareil
ainsi que des essais auxquels il aura été soumis.

12. A bord de tout navire à passagers un exercice d'incendie aura lieu au moins
une fois par quinzaine. Le journal de bord portera mention de cet exercice.

13. Au moins une fois par an, tout au moins, l'inspecteur examinera l'ensemble
des engins destinés à combattre l'incendie.

10. La Commission recommande que tout État contractant s'engage à appliquer
avant le 1er janvier, 1915, les mesures indiquées dans la Convention au sujet du
nombre des canotiers exercés des exercices d'embarcations et des exercices d'incendie,
ainsi que des mesures propres à prévenir, découvrir et éteindre les incendies.

11. La Commission désire exprimer l'estime particulière dans laquelle elle tient les
services qui lui ont été rendus par les deux secrétaires MM. Robinson et Bultinck.
L'expérience acquise par le premier dans le Boats and Davits Committee a rendu le travail de la Commission plus facile et plus agréable qu'il n'aurait pu l'être de toute autre manière. M. Bultinck, dont la maîtrise en français et en anglais a été des plus précieuses, a fourni une somme de travail considérable dont il s'est acquitté à l'entière satisfaction de la Commission.

Signé au nom de la Commission,

J. H. BILES, Président.

F. P. ROBINSON
A. BULTINCK
Secrétaires.
Report of the Committee on Life-saving Appliances.

1. THE Committee, as originally constituted, consisted of representatives of the following delegations: Germany, United States of America, Austria-Hungary, Belgium, Canada, Denmark, France, Great Britain, Italy, Norway, the Netherlands, Russia, Sweden, and New Zealand. The Committee so constituted and strengthened by several additional members of a number of delegations has held eighteen meetings, at which it has carefully examined the questions referred to it by the Conference, and now has the honour to report as follows:—

2. The Committee has the honour to submit, for the consideration of the Conference, that the following rules, which cover all the items enumerated in paragraphs 9 to 14 of the “Questions before the Conference,” should be adopted. The Committee, in making this recommendation, has assumed that the Convention will apply the following rules to all steamships carrying more than twelve passengers on ocean voyages between a port in a contracting State and a port outside that State, and that it will be left to each contracting State to define, within reasonable limits, the voyages which it regards as non-ocean-going.

Life-Saving Appliances Rules.

Rule 1.—Types of Boats and Rafts to be Accepted.

(a) Classification of Life-boats.

For the purpose of these Rules boats shall be classified as follows:—

Class 1.

1 a. Open life-boats with internal buoyancy only.—These boats shall be provided with efficient aircases, the total volume of which must amount to at least 10 per cent. of the capacity of the boat. If the life-boat is of metal, the capacity of the air-tight compartments is to be increased so that the buoyancy of the metal boat may be at least as great as that of the wooden boat.

1 b. Open life-boats with internal and external buoyancy.—These boats shall be provided with efficient aircases, the total volume of which must amount to at least 7.5 per cent. of the capacity of the boat.

The external buoyancy may be of cork or of other equally efficient material, but such buoyancy shall not be secured by the use of rushes, cork shavings, or other shavings, or loose granulated cork, or by any means dependent upon inflation by air. If of cork, its volume shall be not less than 3.3 per cent. of the boat’s capacity; if of any material other than cork, its volume should be such as to give a result in buoyancy and stability equal to that given by cork. If the life-boat is of metal, the internal and external buoyancy is to be increased as described in the case of Class 1 a.

1 c. Pontoon life-boats in which persons cannot be accommodated below deck, and having a well deck above the water line, the area of which is at least 30 per cent. of the whole deck area, together with fixed watertight bulwarks and the freeboard stated below.
Class 2.

2 A. Open life-boats having the upper part of the sides collapsible.—A boat of this type shall have for each person for which it is certified 0.043 cubic metres (1.5 cubic feet) of efficient aircase and external buoyancy, which, if of cork, shall amount to 0.006 cubic metres (0.2 cubic feet) for each person.

2 B. Pontoon life-boats having all the characteristics of Class 1 c except that the bulwarks are collapsible.

2 c. Pontoon life-boats in which persons cannot be accommodated below deck, having a flush deck and watertight collapsible bulwarks, the freeboard being as stated below.

(b.) Motor Boats.

A motor-boat may be accepted as a life-boat if it complies with the requirements laid down for life-boats of Class 1, but for the purpose of computing the number of persons allowed to be carried the space occupied by the machinery must be deducted from the gross capacity of the boat. The difference between the weight of the persons excluded and the weight of the machinery must be taken into account in calculating the volume of the buoyancy.

Motor-boats shall be allowed as life-boats only to a limited number.

(c.) Pontoon Rafts.

An approved pontoon raft should satisfy the following conditions:

1. It should be reversible and fitted with bulwarks of wood, canvas, or other suitable material on both sides. These bulwarks may be collapsible.

2. It should be of such size, strength, and weight that it can be handled without mechanical appliances, and, if necessary, thrown from the vessel's deck.

3. It should have not less than 0.085 cubic metres (3 cubic feet) of aircase or equivalent buoyancy for each person for whom it is certified.

4. It should have a deck area of not less than 0.372 square metres (4 square feet) per person, and the platform should not be less than 150 millim. (6 inches) above the water level when the raft is loaded.

5. The aircases, or equivalent buoyancy, should be placed as near as possible to the sides of the raft.

(d.) General Conditions to be observed in the Construction of all Boats.

All boats shall be of sufficient strength to enable them to be safely lowered when loaded with their full complement of persons and equipment.

All boats shall be fitted for the use of a steering oar.

(e.) General Conditions to be observed in the Construction of Open Life-boats.

Open life-boats of Class 1 A and Class 1 B shall have a mean sheer of at least 4 per cent. of their length.

The aircases of open life-boats of Class 1 shall be disposed along the sides of the boat; they may also be disposed at the ends of the boat, but not in the bottom of the boat.

(f.) General Conditions to be observed in the Construction of Pontoon Life-boats of Classes 1 and 2.

Pontoon life-boats may be constructed of wood or metal, but life-boats of Classes 1 C, 2 B or 2 C, if constructed of wood, shall have the bottom and deck made of two thicknesses with textile material between.

Pontoon life-boats built of metal shall be divided into watertight compartments with means of access to each compartment.

(g.) Pontoon Life-boats.—Arrangements for clearing Deck of Water.

Pontoon life-boats of all classes shall have efficient means for quickly freeing the deck of water. The orifices for this purpose shall be so arranged that, when they are
intermittently submerged, water shall not enter the boats. The number and size of
the orifices shall be determined for each class of boat by a special test.

The arrangements shall be such that in the case of a life-boat 8'5 metres (28 feet)
in length a weight of water not less than 2,032 kilog. (2 tons) shall be cleared
from the boat in a time not exceeding the following:—

<table>
<thead>
<tr>
<th>Class</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1c</td>
<td>60</td>
</tr>
<tr>
<td>2a</td>
<td>40</td>
</tr>
<tr>
<td>2c</td>
<td>20</td>
</tr>
</tbody>
</table>

In testing the arrangements for freeing the boat from water, the life-boat shall be
loaded with iron weights corresponding to all the persons the boat is deemed fit
to carry and the weight of the equipment. For boats having a length greater or less
than 8'5 metres (28 feet) the weight of water to be cleared in the time stated shall be
directly proportional to the length of the boat.

(ii.) Freeboard of Pontoon Life-boats.

The freeboard of life-boats of Classes 1c and 2a shall be such as to provide
a reserve buoyancy of at least 35 per cent. The top of the deck in the well shall be,
at its lowest point, not less than 0'5 per cent. of the length of the boat above the load
waterplane, and the top of the deck at the ends of the well shall be not less than 1'5 per
cent. of the length of the boat above the load waterplane.

The freeboard of a flush-decked life-boat of Class 2c shall be not less than that
given in the following table, which should be applied without correction in the case of
boats which have a mean sheer equal to 3 per cent. of their length. The depth of the
boat for use with the table is to be measured vertically from the under side of the
garboard strake to the top of the deck at the side amidships, and the freeboard is to be
measured from the top of the deck at the side amidships when the boat is loaded
in fresh water.

<table>
<thead>
<tr>
<th>Depth of Boat</th>
<th>Freeboard in fresh water.</th>
</tr>
</thead>
<tbody>
<tr>
<td>310 millim. (12 inches)</td>
<td>... ... ...</td>
</tr>
<tr>
<td>460 &quot; (18 &quot; )</td>
<td>... ... ...</td>
</tr>
<tr>
<td>610 &quot; (24 &quot; )</td>
<td>... ... ...</td>
</tr>
<tr>
<td>760 &quot; (30 &quot; )</td>
<td>... ... ...</td>
</tr>
</tbody>
</table>

For intermediate depths the freeboard is to be found by interpolation. The above
table of freeboards is framed for a mean standard sheer equal to 3 per cent. of the boat's
length. If the sheer of the boat is less than the standard, the difference between the
actual mean sheer in millimetres, or inches, measured at the stern and the stern post,
and the standard mean sheer in millimetres, or inches, is to be divided by 7 and the
result added to the freeboard given in the above table.

No deduction is to be made from the freeboard on account of the deck beams
having camber, or on account of the sheer being greater than the standard sheer.

The freeboard required is not affected by the length of the boat.

(i.) Alternative Forms.

Boats of other types may be accepted as equivalent to boats of one of the types
mentioned above, and rafts of other types may be accepted as equivalent to the pontoon
raft mentioned above, if the administration concerned is satisfied by actual trial that
the boat or raft in question is as effective as the boat or raft for which it is accepted as
an equivalent.

Each administration which accepts a new type of boat or raft in this manner will
send particulars of the trials, and, in the case of a boat, of the classification, to the
other administrations concerned.

RULE 2.—Form, Capacity and Number of Persons.

(a.) Capacity of Open Boats.

Subject to the provisions stated below, the capacity of open boats, other than
boats of Class 2 A, shall be determined by means of Stirling's rule, the measurements
being taken in accordance with regulations prescribed in Appendix I, or by some other
rule giving a similar degree of accuracy; but in cases in which the administration is satisfied that the capacity coefficient of a boat is not less than 0·6, the capacity may be ascertained by multiplying the length, breadth and depth, as defined in Appendix I, by 0·6. In all cases, however, the owner has the right to claim that the capacity shall be determined by exact measurement.

If the sheer of the gunwale measured at points 25 per cent. of the boat's length from either end exceeds 1 per cent. of the boat's length, the depth used in calculating the sectional area of the boat at these points shall not exceed the midship depth plus 1 per cent. of the boat's length.

If the depth of the boat amidships is greater than 45 per cent. of the breadth, the depth used in calculating the area of the midship section shall not be greater than 45 per cent. of the breadth, and the depth used for the sections at 25 per cent. of the boat's length from each end shall not be greater than 45 per cent. of the breadth amidships plus 1 per cent. of the boat's length or the actual depth of the boat at these points, whichever is least.

In the case of square sterned boats, the aftermost area is to be calculated as if the boat were pointed at the stern.

Subject to the following provisions, the number of persons to be allowed for an open life-boat of Class 1 A shall be found by dividing the capacity in cubic metres by 283, and the number allowed for a life-boat of Class 1 B by dividing the capacity in cubic metres by 255.

The number of persons allowed shall not in any case exceed the number for which proper seating accommodation is provided.

If the depth of a boat exceeds 1·22 metres (4 feet), the number of persons found by the above rule shall not be allowed until the boat has been tried in the water with that number of persons on board, wearing life-belts; but until the test has been made the number of persons shall be reduced in the proportion which 1·22 metres (4 feet) bears to the actual depth of the boat.

In open boats with very fine ends, the number of persons should be limited by an appropriate formula,* and another appropriate formula* should be used for the purpose of preventing open boats being made too full in form.

(b.) Open Life-boats of Class 2 A.

The area of the surface contained within the fixed gunwale of the boat shall be determined in accordance with regulations prescribed in Appendix I, or by some other rule giving a similar degree of accuracy.

Subject to the following provisions, the number of persons to be allowed for a boat of this type shall be found by dividing the area of the surface in square metres by 0·325.

The number of persons allowed shall not exceed the number for which seating accommodation is provided.

Freeboard of life-boats of Class 2 A shall not be less than that given in the following table. The freeboard is measured vertically to the top of the solid hull at the side amidships, when the boat is loaded in fresh water:

<table>
<thead>
<tr>
<th>Length of Boat</th>
<th>Freeboard</th>
</tr>
</thead>
<tbody>
<tr>
<td>7·90 metres (25·9 feet)</td>
<td>200 millim. (7·87 inches)</td>
</tr>
<tr>
<td>8·50 &quot; (27·9 &quot; )</td>
<td>225 &quot; (8·86 &quot; )</td>
</tr>
<tr>
<td>9·15 &quot; (30·0 &quot; )</td>
<td>250 &quot; (9·84 &quot; )</td>
</tr>
</tbody>
</table>

For intermediate depths the freeboard is to be found by interpolation.

The capacity in cubic metres of a boat of this type shall be deemed to be the number of persons found by the above method multiplied by 0·283.

(c.) Pontoon Life-boats of Classes 1 C, 2 B, and 2 C.

The number of persons to be allowed in boats of these classes shall be subject to the requirement that there shall be proper seating accommodation for all persons. The raised part of the deck at the sides of the well in boats of Class 1 C and Class 2 B may be allowed for seating accommodation.

Classes 1 C and 2 B.—The number of persons allowed shall not exceed the number the boat is capable of carrying with the freeboard stated in Rule 1 (h), allowing at least 63 kilog. (140 lbs.) as the weight of each person.

* Each administration will determine its own formula.
The area of the deck shall be measured in accordance with regulations prescribed in Appendix I, or by some other rule giving a similar degree of accuracy.

Subject to the above conditions, the number of persons to be allowed shall be found by dividing the area of the deck in square metres by 0.302, provided that, if an administration is satisfied by actual trial that there is proper seating accommodation for a greater number of persons, the division of 0.302 may be reduced, but in no case shall it be less than 0.279. In such cases the administration will send particulars of the trial and a drawing of the boat to the other administrations.

Class 2 c.—The number of persons allowed shall not exceed the number the boat is capable of carrying with the freeboard stated in Rule 1, allowing at least 63 kilog. (140 lbs.) as the weight of each person.

The number of persons to be allowed shall be found in the same manner as in the case of Classes 1 c and 2 n, but the area of the deck in square metres shall be divided by 0.325.

The capacity in cubic metres of pontoon boats of all classes shall be deemed to be the number of persons found by the above method multiplied by 0.283.

(d.) General Rules.

All boats shall be correctly marked to the satisfaction of the inspecting authority, with permanent and clear characters indicating the dimensions of the boat and the number of persons allowed.

When the number of persons to be allowed in any boat is ascertained by trial, the persons are to be considered as adult persons, wearing life-jackets, and there must in all cases be room for the proper use of the oars.

Each of the prescribed boats must have a capacity of at least 3.5 cubic metres (125 cubic feet).

In all boats two children under 12 years shall be counted as one adult.

Rule 2.—Boats to be Provided.

(a.) Davits must be provided in accordance with the following Table I, each set of davits having a life-boat of Class 1 attached, provided, however, that no ship shall be required to have a larger number of sets of davits than the number of boats required for the accommodation of all persons.

Table I.

<table>
<thead>
<tr>
<th>Column I.</th>
<th>Column II.</th>
<th>Column III.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered Length of Vessel in Metres.</td>
<td>Registered Length of Vessel in Feet.</td>
<td>Minimum Number of Sets of Davits.</td>
</tr>
<tr>
<td>Under 48.8 ...</td>
<td>48.8 and under 57.9 ...</td>
<td>169 and under 130 ...</td>
</tr>
<tr>
<td>57.9</td>
<td>67.1</td>
<td>190</td>
</tr>
<tr>
<td>67.9</td>
<td>74.7</td>
<td>220</td>
</tr>
<tr>
<td>74.7</td>
<td>82.8</td>
<td>245</td>
</tr>
<tr>
<td>82.3</td>
<td>91.4</td>
<td>270</td>
</tr>
<tr>
<td>91.4</td>
<td>100.6</td>
<td>300</td>
</tr>
<tr>
<td>100.6</td>
<td>112.8</td>
<td>330</td>
</tr>
<tr>
<td>112.8</td>
<td>125.0</td>
<td>370</td>
</tr>
<tr>
<td>125.0</td>
<td>140.2</td>
<td>410</td>
</tr>
<tr>
<td>140.2</td>
<td>158.5</td>
<td>460</td>
</tr>
<tr>
<td>158.5</td>
<td>176.8</td>
<td>520</td>
</tr>
<tr>
<td>176.8</td>
<td>195.1</td>
<td>580</td>
</tr>
<tr>
<td>195.1</td>
<td>213.4</td>
<td>640</td>
</tr>
<tr>
<td>213.4</td>
<td>231.6</td>
<td>700</td>
</tr>
<tr>
<td>231.6</td>
<td>249.9</td>
<td>760</td>
</tr>
<tr>
<td>249.9</td>
<td>271.1</td>
<td>820</td>
</tr>
<tr>
<td>271.1</td>
<td>292.6</td>
<td>880</td>
</tr>
<tr>
<td>292.6</td>
<td>313.9</td>
<td>960</td>
</tr>
</tbody>
</table>

[1244—78] 6
For vessels exceeding 313.9 metres (1,030 feet) in length, the administration
concerned will prescribe the minimum number of sets of davits and the minimum
number of open boats in each case as it arises, and will inform the other administrations
of the decision arrived at.

The total number of open life-boats attached to davits must not be less than that
given in the third column of the above Table.

If it is not practicable or reasonable to place in any ship the number of sets of
davits required by the second column of the above Table, the administration concerned
may sanction a smaller number of sets of davits in that ship, provided however, that
the number of sets of davits or other appliances of equal efficiency shall not be less
than that given in the third column of the Table. The only case in which this last
number may be reduced is where a large proportion of the total number of persons
carried in a ship is provided for in boats of 15.2 metres (50 feet) or more in length,
and the administration is satisfied that this arrangement is in all respects equally
efficient.

When the number of sets of davits, or of other equally effective appliances, is less
than required by the second column of the Table, the owner of the ship shall be
required to demonstrate by an actual test made in the presence of a surveyor of the
administration concerned that the arrangements are such that all the boats can be
placed in the water, under the standard conditions set forth below, in a time to be
determined in accordance with an appropriate formula.*

The conditions of the test shall be as follows:—

1. The ship is to be in smooth water and upright.
2. The time is the time required from the beginning of the removal of the boat
   covers, or such other operation as may be necessary to prepare the boats for
   lowering, until the last boat or life-raft is afloat.
3. The number of persons employed in the whole operation must not exceed the
total number of boat hands that will under normal circumstances be carried
in the vessel when in service.
4. The boats when being lowered must have their full equipment on board and at
least two men.

(b) If the life-boats attached to davits do not provide accommodation for all
persons, additional life-boats shall be carried of such number and capacity that the
total capacity of the life-boats attached to davits and the additional life-boats is not
less than that given in the following Table:—

* Each administration will determine its own formula, and will communicate its decision to the other
administrations.
### TABLE II.

<table>
<thead>
<tr>
<th>Registered Length of Vessel</th>
<th>Minimum Number of Sets of Davits</th>
<th>Minimum Aggregate Capacity of Life-boats</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-5 and under 36-6</td>
<td>100 and under 120</td>
<td>2</td>
</tr>
<tr>
<td>36-6</td>
<td>120</td>
<td>2</td>
</tr>
<tr>
<td>42-7</td>
<td>140</td>
<td>2</td>
</tr>
<tr>
<td>48-8</td>
<td>160</td>
<td>3</td>
</tr>
<tr>
<td>53-3</td>
<td>175</td>
<td>3</td>
</tr>
<tr>
<td>57-9</td>
<td>190</td>
<td>4</td>
</tr>
<tr>
<td>62-5</td>
<td>205</td>
<td>4</td>
</tr>
<tr>
<td>67-1</td>
<td>220</td>
<td>5</td>
</tr>
<tr>
<td>70-1</td>
<td>230</td>
<td>5</td>
</tr>
<tr>
<td>74-7</td>
<td>245</td>
<td>6</td>
</tr>
<tr>
<td>77-7</td>
<td>255</td>
<td>6</td>
</tr>
<tr>
<td>82-3</td>
<td>270</td>
<td>7</td>
</tr>
<tr>
<td>86-9</td>
<td>285</td>
<td>7</td>
</tr>
<tr>
<td>91-4</td>
<td>300</td>
<td>8</td>
</tr>
<tr>
<td>96-0</td>
<td>315</td>
<td>8</td>
</tr>
<tr>
<td>100-6</td>
<td>330</td>
<td>9</td>
</tr>
<tr>
<td>106-7</td>
<td>350</td>
<td>9</td>
</tr>
<tr>
<td>112-8</td>
<td>370</td>
<td>10</td>
</tr>
<tr>
<td>118-9</td>
<td>390</td>
<td>10</td>
</tr>
<tr>
<td>125-0</td>
<td>410</td>
<td>12</td>
</tr>
<tr>
<td>132-6</td>
<td>435</td>
<td>12</td>
</tr>
<tr>
<td>140-2</td>
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<tr>
<td>149-4</td>
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<td>14</td>
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<tr>
<td>158-5</td>
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<tr>
<td>167-6</td>
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<tr>
<td>176-8</td>
<td>580</td>
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<tr>
<td>185-9</td>
<td>610</td>
<td>18</td>
</tr>
<tr>
<td>195-1</td>
<td>640</td>
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<tr>
<td>204-2</td>
<td>670</td>
<td>20</td>
</tr>
<tr>
<td>213-4</td>
<td>700</td>
<td>22</td>
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<tr>
<td>222-5</td>
<td>730</td>
<td>22</td>
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<td>231-6</td>
<td>760</td>
<td>24</td>
</tr>
<tr>
<td>240-8</td>
<td>790</td>
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<td>271-3</td>
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<td>281-9</td>
<td>925</td>
<td>28</td>
</tr>
<tr>
<td>292-6</td>
<td>960</td>
<td>30</td>
</tr>
<tr>
<td>303-3</td>
<td>995</td>
<td>30</td>
</tr>
</tbody>
</table>

The additional life-boats may be either of Class 1 or Class 2.

If the before-mentioned life-boats do not provide accommodation for at least 75 per cent. of the persons, then additional life-boats of either Class 1 or Class 2 shall be provided so that there is accommodation for at least 75 per cent. of all persons.

(c.) Accommodation shall be provided either in life-boats of Class 1 or Class 2 or by pontoon rafts of approved type and construction for all persons.

(d.) The number and capacity of life-boats need in no case be greater than is sufficient to accommodate all persons.

(e.) Boats, the body of which requires to be adjusted in order to provide the necessary buoyancy, shall not be allowed as part of the life-saving equipment.

**Rule 4.—Equipment for Boats and Rafts.**

(a.) Every boat shall be equipped as follows:—

1. With the single banked complement of oars and two spare oars.
2. With one set and a half of thole pins or crutches, and with two plugs for each plug hole. Plugs are not required when a proper automatic valve is fitted.
3. With a bailer, a galvanized iron bucket, a rudder and a tiller, or yoke and yoke lines, and a boat-hook.
4. With two hatchets.
5. With an efficient lantern.
6. With a mast or masts, and with at least one good sail and proper gear for each; but this does not apply to an approved motor boat.
7. With an efficient compass.

In the case of vessels engaged in the North Atlantic passenger trade which are provided with a wireless telegraphy installation, only a limited number of the boats need be equipped with masts, sails, and compasses.

In the case of pontoon life-boats there should be no plug hole. Every pontoon boat shall, however, be equipped with at least two efficient bilge pumps.

(b) Every approved pontoon raft shall be equipped as follows:—

1. With four oars.
2. With five rowlocks.

In ships which carry rafts, a number of rope ladders should be kept readily available for embarking persons on the rafts.

(c) In addition to the above equipment, every boat and raft shall be equipped with:

1. A life-line securely becketted round the outside.
3. A painter.
4. Five litres (1 gallon) of vegetable or animal oil and a vessel for distributing it on the water, so constructed that it can be attached to the sea-anchor.
5. An airtight receptacle containing 1 kilog. (2 lb.) of provisions for each person.
6. An airtight receptacle containing 1 litre (1 quart) of fresh water for each person.
7. A number of self-igniting “red lights” and a watertight box of matches.

(d) All loose equipment should be securely attached to the boat or raft.

Rule 5.—Stowage and Launching of Boats and Rafts.

(a) All boats and rafts shall be so stowed that they can be placed in the water in the shortest possible time and the arrangements shall be such that, under unfavourable conditions in the matter of list and trim, from the point of view of working the boats and rafts, it shall be possible to embark in the boats and rafts as large a number of persons as possible.

Arrangements shall be made, either by appliances for transferring the boats across the deck, or by stowing some of the additional boats in rows across the deck, or by other efficient means for as large a number of the boats and rafts as is practicable being launched, if necessary, on either side of the ship.

The davits or appliances for lowering boats shall be fitted on one or more of the decks in such positions that the boats can be efficiently lowered from them. Davits shall not be fitted in the bows of a ship, but they may be fitted in any other position in the ship, provided that the boats are not brought into dangerous proximity to a propeller on being lowered into the water.

Where boats are stowed on more than one deck, the arrangements for lowering them shall be such as to prevent the boats from a lower deck being fouled by those from a deck above.

(b) The davits shall be of such strength that the boats can be lowered with their full complement of persons and equipments, when the ship has a steady list of 1°.

The davits must be fitted with a gear of sufficient power to turn out the boat against the maximum list under which the lowering of the boats is possible on the particular vessel.

When more than one boat is served by a set of davits some arrangement must be made to prevent the falls fouling when they are recovered.

(c) Any appliance, or appliances, may be accepted in lieu of davits or of sets of davits, if the administration is satisfied by actual trial that the appliance in question is as effective under all conditions as davits for placing the boats in the water.
Each administration which accepts a new type of appliance in this manner will send particulars of the appliance and of the trials to the other administrations concerned.

RULE 6.--LIFE-BUOYS AND LIFE-JACKETS.

(a.) An approved life-jacket shall mean a jacket of approved material and construction, which is capable of floating in fresh water for twenty-four hours with 6 8 kilog. (15 lbs.) of iron suspended from it. No life-jacket the buoyancy of which depends upon air spaces shall be allowed.

One approved life-jacket or other approved article of equal buoyancy suitable to be worn on the body shall be carried for each person on board. In addition, a sufficient number of life-jackets of a size suitable for children shall be provided.

(b.) An approved life-buoy shall mean either:

1. A life-buoy built of solid cork, capable of floating in fresh water for at least twenty-four hours with at least 14 kilog. (31 lbs.) of iron suspended from it; or

2. A strong life-buoy of any other approved pattern and material, which is capable of floating in fresh water for twenty-four hours with at least 14 kilog. (31 lbs.) of iron suspended from it, and which is not stuffed with rushes, cork shavings, or other shavings, or loose granulated cork, or other loose material, and which, if it depends for its buoyancy on air, does not require inflation before use.

If the ship is under 122 metres (400 feet) in length, at least twelve approved life-buoys shall be carried; if of 122 metres (400 feet) or over, but under 183 metres (600 feet), at least eighteen approved life-buoys shall be carried; if of 183 metres (600 feet) or over, but under 244 metres (800 feet), at least twenty-four approved life-buoys shall be carried; and if of 244 metres (800 feet) or over, at least thirty approved life-buoys shall be carried.

(c.) All life-buoys shall be fitted with beackets securely seized, and at least one on each side of the vessel shall be fitted with a life-line at least 27 metres (15 fathoms) in length. At least half the life-buoys required in any ship, and not fewer than six in any case, shall have placed near them, with means for attachment to them, efficient self-igniting life-buoy lights, inextinguishable in water.

(d.) All life-buoys and life-jackets shall be suitably placed so as to be readily accessible to all persons on board; and their position shall be plainly indicated so that it may be known to those for whom they are intended. The life-buoys shall not be permanently secured, but shall always be ready to be cast loose.
Appendix I.

MEASUREMENT OF BOATS.

1. Open Life-boats.

The capacity of open boats other than those of Class 2A shall be ascertained by Stirling's rule in the following manner:

1. Length.—Measure the length of the boat in a straight line from the inside of the planking or plating at the stem to the corresponding point at the sternpost, or in the case of a square stern, to the inside of the transom. Divide this length into four equal parts.

2. Transverse Areas.—Then, the boat being first sufficiently cleared to admit of the required depths and breadths being properly taken, find the transverse area at each of the three points of division of the length as follows:

   Measure at each point of division, from a straight line stretched across the gunwale, the depth to the inside of the planking or plating next the keel, and if necessary restrict the depth so measured to conform with Rule 2(a).

   Divide the depth, or restricted depth, as the case may be, into four equal parts which when set off successively from the lowest point of the depth will give the points of division at which the breadths are to be measured.

   Measure the horizontal breadth to the inside of planking or plating at each of the three points of division and at the upper and lower points of the depth, or restricted depth as the case may be; number these breadths successively from above, i.e., numbering the upper breadth one, and so on down to the fifth or lowest breadth; multiply the second and fourth by four and the third by two; add these products together, and to the sum add the first breadth and the fifth; multiply the quantity thus obtained by one-third of the common interval between the breadths and the product shall be deemed to be the transverse area.

3. Computation of Capacity.—Having thus obtained the transverse area at each point of division of the length, proceed to ascertain the capacity of the boat in the following manner:

   Number the areas successively 1, 2, ..., commencing forward. Multiply the third area by two, and to the product add four times the second and fourth areas; multiply the quantity thus obtained by one-third of the common interval between the areas, and the product will be the capacity of the boat in cubic feet or in cubic metres according to whether the measurements are taken in feet or in metres.

   When the cubic capacity of an open boat is to be ascertained by multiplying the product of the length, breadth and depth by 6, the following provisions apply:

   1. Length.—Shall be measured from the intersection of the outside of the planking or plating with the stem to the corresponding point at the sternpost, or in the case of a square stern to the after side of the transom.

   2. Breadth.—Shall be measured from the outside of planking or plating to the outside of the planking or plating amidships at the point or place where the width of boat is greatest.

   3. Depth.—Shall be measured amidships from the top of the gunwale to the top of the bottom plank or plating next the keel, but the depth used in calculating the cubic capacity shall not in any case exceed 45 per cent. of the breadth.

2. Pontoon Life-boats.

The area of the deck of life-boats of Classes 1 c, 2 b, and 2 c is to be ascertained by the following rule:

1. Length.—Measure the length on the deck from the intersection of the outside of the planking or plating with the stem, to the corresponding point at the sternpost.

* No. 1 being at the extreme limit of length at the bow, and No. 5 at the extreme limit of length at the stern these are not deemed to yield anything.
Divide the length into four equal parts, and subdivide the foremost and aftermost parts into two equal parts, measure the breadth to the outside of the planking or plating (sheerstrake) at each point of division and subdivision of the length.

2. **Computation of Area.**—Having measured the breadths as described proceed to ascertain the area in the following manner:—

Number the breadths successively 1, $1\frac{1}{2}$, 2, 3, 4, $4\frac{1}{2}$, $5\frac{3}{4}$, * No. 1 being at the extreme limit of length at the bow, and No. 5 at the extreme limit of length at the stern.

Multiply the intermediate breadths $1\frac{1}{2}$ and $4\frac{1}{2}$ by 2, the second and fourth breadths by 1·5 and the third breadth by 4; add these products together and multiply the quantity thus obtained by one-third of the common interval between the breadths and the product will be the area of the deck in square feet, or in square metres, according to whether the measurements are taken in feet or in metres.

**Note.**—This rule is also to be used for ascertaining the area contained within the fixed gunwale of boats of Class 2 a.

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3. The above rules have been drawn up upon the assumption that they will be applied in full to all new ships covered by the Convention. For the purpose of these rules, a "new ship" is assumed to be a ship the construction of which is commenced after the 1st July, 1914. The term "existing ship" includes all other ships covered by the Convention.

4. As regards existing ships, the Committee recommend the Conference to adopt the following resolutions:—

"I. Each contracting State undertakes to secure that accommodation for all persons on board is provided in boats and/or rafts not later than the 1st January, 1915."

"II. Each contracting State undertakes to enforce the full requirements of the rules, given above, on all its existing ships within the shortest possible period, and in no case later than the 30th June, 1915, provided that each administration, if it is satisfied that it is not reasonable or practicable to require full compliance with the provisions of these rules, shall have the right to exercise discretion on the following points within the limits specified:—

"(a.) A boat or raft which has been accepted by the administration of a contracting State on board an existing vessel may be accepted in place of a life-boat or life-raft respectively until the 1st January, 1920.

"(b.) The requirement that pontoon life-boats shall have the bottom and deck made of two thicknesses with textile material between, and the full amount of freeboard specified for boats of this type need not be insisted upon until the 1st January, 1920.

"(c.) In the case of ships between 74·7 metres (245 feet) and 140·2 metres (460 feet) in length, the minimum number of sets of davits required by the rules (as stated in the third column of Table 1) may be reduced by one, and in the case of ships over 140·2 metres (460 feet) in length, the number of sets of davits may be reduced by one on each side of the ship, if ample provision is made for launching the boats.

"(d.) The requirement that all boats and davits shall be of sufficient strength to enable them to be safely lowered when loaded with their full complement of persons and equipment, and the requirement that the davits must be fitted with a gear of sufficient power to turn out the boat against a list need not be insisted upon."

5. The Committee, at the instance of the French Delegation, desire to place on record their opinion that the master of the ship is responsible for the manner of embarking the passengers into the boats, and that he will be guided in his decision in regard to this matter by the special circumstances and conditions of the case.

* No. 1 being at the extreme limit of length at the bow, and No. 5 at the extreme limit of length at the stern these are not deemed to yield anything.*

[1244—78]
MANNING OF BOATS.

6. The Committee recommend the adoption of the following regulations:

(a.) For each boat or raft required to be carried on the ship efficient boat hands must be carried in accordance with the following scale:

If the boat or raft is capable of carrying—

60 persons or less ... 3 efficient boat hands.
61 to 85 persons ... 4 " "
86 to 110 " ... 5 " "
111 to 160 " ... 6 " "
161 to 210 " ... 7 " "

And one additional efficient boat hand shall be carried for every extra fifty persons which the boat is capable of carrying.

(b.) An "efficient boat hand" shall be defined as a member of the crew who has been trained in launching, lowering, and detaching life-boats, and in the use of oars, and has proved himself qualified to handle life-boats. Efficient boat hands shall be able to understand and answer the orders relating to life-boat service and duties. Efficient boat hands shall have a certificate as such, which certificate shall be issued under the authority of the administration.

NOTE.—This scale determines the minimum aggregate number of efficient boat hands to be carried in the ship, but admits of a larger or smaller number being assigned to any particular boat or raft, if circumstances require it, the actual allocation of numbers to particular boats being within the discretion of the master.

MANNING OF SHIPS.

7. The Committee, realising that highly divergent views in regard to the competency of the Conference to deal with the manning of ships, as distinct from boat manning, were held by some of the delegations, adopted the following resolution:

"All foreign-going passenger steamships must be sufficiently and efficiently manned, from the point of view of safety of life at sea."

BOAT AND FIRE DRILL AND THE ORGANISATION OF THE CREW FOR DEALING WITH AN EMERGENCY.

8. The Committee recommend the Conference to adopt the following principles:

(a.) Each member of the crew shall have allotted to him particular duties to perform in the event of an emergency; and a muster list showing the stations and duties of each member of the crew shall be prepared before each voyage, and shall be posted up in the crew's quarters and in other conspicuous places. A man capable of working the machinery shall be allotted to each boat propelled by mechanical power.

The muster list shall assign definite duties to the various members of the crew in connection with—

1. The launching of the boats attached to davits;
2. The preparation of the other boats and life-saving appliances;
3. The equipment of the boats and rafts generally;
4. The closing of the bulkhead doors, valves, &c.;
5. The muster of passengers; and
6. The extinction of fire.

(b.) Each boat and raft shall be in charge of an officer, petty officer, or seaman, who shall be supplied with a list of its crew and shall be responsible for seeing that the members of the crew are acquainted with their respective duties and stations.
(c.) The muster list shall assign to the members of the steward's department their several duties in connection with the mastering of passengers at a time of emergency. These duties shall include the warning of the passengers and seeing that they are dressed and have put on their life-jackets in a proper manner, the assembling of the passengers, the guarding of the passages and stairways, and, generally, the regulation of the movement of the passengers.

(d.) Definite signals shall be prescribed for calling all hands to their boat and fire stations, as shown in the muster list, and full particulars of these signals shall be set out in the muster list.

(e.) The master of the ship shall satisfy the proper authorities, before the vessel sails, that a muster list has been prepared for the ship.

(f.) An officer or officers told off for the purpose shall be responsible for seeing that the boats, rafts, and all other life-saving appliances are kept at all times ready for use.

(g.) Musters and drills of the crew at their boat and fire stations shall be held at least once a fortnight when practicable, either in port or at sea. The dates upon which the musters are held shall be recorded in the official log-book, and if on any occasion a muster is not held an entry shall be made stating why a muster was not practicable.

(h.) Different sets of boats shall be used at each successive boat drill; and the drills and inspections must be so arranged as to secure that all the boats and rafts on the ship, with the gear appertaining to them, are at all times ready for immediate use, and that the crew thoroughly understand, and are practised in, the duties they have to perform.

**FIRE PREVENTION, DETECTION, AND EXTINCTION.**

9. Although paragraph 11 of the "Questions before the Conference" raises the question of fire-extinguishing appliances only, the Committee, at the suggestion of the United States Delegation, has dealt also with the questions of fire prevention and detection. It recommends the Conference to adopt the following resolutions:—

**PREVENTING FIRE.**

1. No passenger vessel shall (subject to the carriage of naval and military stores for the public service as authorized by the administration, and subject to the carriage of distress signals) carry either as cargo or ballast any goods which by reason of the nature, quantity, or mode of stowage thereof are, either singly or collectively, likely to endanger the lives of the passengers or the safety of the ship.

2. Each administration shall, from time to time, by public notice issue warnings as to what goods are dangerous goods and as to the necessary precautions to be taken in the packing and stowage thereof. Each administration shall enforce the observance of such precautions in regard to all such goods.

3. Adequate means shall be provided for ingress and egress to and from the various compartments, decks, &c. In all compartments which are lighted by electric light alone locked oil or candle lamps shall be placed to light the exits and kept burning throughout the night.

Vessels may be exempted from this last requirement if there is an independent source of lighting above the upper deck, with an independent circuit for lighting the exits, and this emergency system of lighting is used every night in addition to the ship's general lighting system.

**DETECTING FIRE.**

4. An efficient patrol system shall be maintained so that an outbreak of fire may be promptly detected.

**EXTINGUISHING FIRE.**

5. All passenger steamships shall, if over 4,000 tons gross have three, and if of 4,000 tons gross or under, two powerful steam or equivalent pumps available for fire extinguishing purposes. Each of these pumps shall be capable of giving an adequate
supply of water delivered in two powerful jets simultaneously for use in any part of the vessel.

The service pipes shall be so arranged that an adequate supply of water in at least two powerful jets can be rapidly and simultaneously brought to bear upon any part of a deck occupied by passengers and crew when the watertight and fire doors are closed.

In addition, there shall be carried a sufficient number of portable fluid fire extinguishers.

6. Provision shall be made whereby an adequate supply of water delivered in at least two powerful jets and an ample supply of steam may be conveyed to any space filled with cargo, provided that if the vessel is less than 1,000 tons gross the provision for a supply of steam need not be insisted on.

7. In the machinery spaces there shall be at least two fluid fire extinguishers.

8. The pumps must be available for immediate use prior to the ship leaving port.

9. The service pipes and fire hoses shall be made of suitable material and be of ample size. The branches of the pipes on each deck shall be so placed that the hose can be easily coupled to them.

10. Two smoke helmets and two safety lamps shall be carried on board and be kept in different places.

11. Each administration may accept fire-extinguishing apparatus of other types, provided the administration concerned is satisfied by actual trial that such apparatus is as effective as that above described. Each administration which accepts other types will send particulars of the apparatus and trial to the other administrations.

12. Fire drill shall be carried out at least once a fortnight on board all passenger ships, and the drill shall be recorded in the log-book.

13. The fire-extinguishing appliances shall be thoroughly examined by a surveyor at least once a year.

10. The Committee recommend that the contracting States should undertake to enforce the full requirements as to boat manning, boat and fire drill, and fire prevention, detection, and extinction on all ships included within the Convention before the 1st January, 1915.

11. The Committee wishes to express its appreciation of the services of the Secretaries, M.M. Robinson and Bultinck. The experience of the former as Secretary of the British Boats and Davits Committee has made the work of this Committee more easy and pleasant than otherwise it might have been. M. Bultinck, whose mastery of French and English has been of the greatest value, has had a great amount of work to do, which he has done to the Committee’s complete satisfaction.

F. P. Robinson, A. Bultinck, Secretaries.

J. H. BILES, Chairman.
INTERNATIONAL CONFERENCE ON SAFETY OF LIFE AT SEA.

Life-Saving Appliances Committee.

First Meeting.—November 14, 1913.

THE CHAIRMAN, SIR JOHN BILES, opened the proceedings and expressed his sense of the honour which had been conferred upon him by his appointment as Chairman of the Committee. He would need all the assistance and indulgence of the members of the Committee and he felt sure that they would extend it to him.

The first business was to appoint a secretary, and he had pleasure in nominating Mr. F. P. Robinson of the Board of Trade to serve in that capacity. Mr. Robinson had been Secretary of the British Boats and Davits Committee and was therefore familiar with the work. At the same time, as part of the proceedings would be in French, he would be very grateful if the Belgian Delegation would allow one of their Secretaries to act as a Secretary of the Committee in conjunction with the English Secretary.

M. LE JEUNE (Belgium) suggested the name of Commander A. Baltinck.

THE CHAIRMAN continued, and referred to the fact that there were present some gentlemen who were not delegates, and suggested that each delegation should consider whether they would wish these gentlemen to take part in the proceedings of the Committee. If the delegation decided that it would wish these gentlemen who were not delegates to take part in the discussions the Committee would welcome their assistance, but he would like to point out that the Committee was very large and had an extensive programme.

A number of documents had been circulated by the Governments of Germany, United States of America, and Great Britain, and further copies of these documents were available for members of the Committee. If any other delegation wished to circulate any documents they should be handed to the Secretaries, and would then be distributed.

The matters which had been referred to the Committee by the Conference were set out in the section of the paper “Questions before the Conference” headed “Life-Saving Appliances.” Paragraph 14 of this paper refers to fire-extinguishing appliances, which is a subject quite apart from the rest of the subjects to be dealt with by the Committee. There are, therefore, two main subjects into which the Committee must enquire, and it would appear desirable in the first instance to table two resolutions of a general character, one dealing with the question of life-boats and the other with fire-extinguishing appliances. These resolutions will be circulated for discussion at the next meeting. The one about boats might be on the lines of the first paragraph of the life-saving appliances section of the paper, namely, “Does the Conference endorse the principle that in future all foreign-going passenger steamers should be required to provide accommodation in life-boats or their equivalent for all persons on board?” and that dealing with fire extinguishers might be whether the Committee is of opinion that the question of fire-extinguishing appliances can be dealt with under international agreement.

Arising out of the second of these questions is a point raised by the American Delegation, namely, as to whether the Committee should consider the question of Fire Prevention. It will be for the Committee to consider in what form Fire Prevention should be included.

GENERAL UHLER (United States) asked whether it would be proper at this stage to put forward a resolution that the Committee should give attention to the question of Fire Prevention, including such matters as the restriction of cargo on passenger ships, the proper stowage of cargo and its division into separate compartments, and efficient means for the detection of fire in inaccessible compartments. Possibly the Committee should consider whether or not mechanical equipment for the detection of fire should be installed. In the opinion of the American Delegation, since these
appliances are simple, easy of access and cheap, the answer to this question should be in
the affirmative.

SIR NORMAN HILL (Great Britain) said that he agreed that the important
point in dealing with fire at sea was most certainly prevention, as it is in all other
accidents which can happen at sea. If the Committee can see its way to recommend
that the fire problem should be dealt with internationally, in his opinion it should
certainly do so, but it would be extremely difficult for international agreement to be
attained except on general principles. The appliances to which General Uhler referred
were carefully examined by the British Merchant Shipping Advisory Committee, and
the decision at which they arrived was that, while some were of considerable value,
others were comparatively useless. The governing feature in such cases is the question
of bulkheading. In the great majority of cases of fire the best course is to batten down
all the hatches and leave the fire alone. More disasters had been caused by
ill-considered attempts to get at the fire than by anything else.

M. RIESS (Germany) said that the German Delegation had not gone into the
question of Fire Prevention as this was not originally included in the programme.
The delegation were, however, of the opinion that general principles only should be
laid down.

M. TRÉFEU (France) said he did not think it would be possible to go into details
in regard to any of the matters which were under discussion, and in particular in
regard to protection against fire. He also inquired whether the Committee would deal
with Fire Prevention or Life-Saving Appliances first.

GENERAL UHLER (United States) said that he had no intention of dealing with
such subjects except by general principles, but he wished to call the attention of the
Committee to the methods of fire detection and prevention.

SIR NORMAN HILL (Great Britain) suggested that the methods of detection
should not necessarily be mechanical.

THE CHAIRMAN said that it appeared that the general opinion of the Com-
mittee was that fire prevention, detection, and extinction should be dealt with by the
Committee, but that only general principles should be laid down. Draft resolutions
on these two subjects would therefore be prepared and circulated before the next
meeting.

SIR NORMAN HILL (Great Britain) said that, in regard to the question of
life-boats, he thought it probable that all the members of the Committee would be in
favour of the principle that accommodation should be provided in the form of life-boats,
or their equivalent, for all persons on board, but he should like to suggest that no
principle should be adopted without making it clear that the stability and seaworthiness
of the ship must always be the primary consideration.

M. PEDERSEN (Norway) said that the Norwegian Delegation were of the opinion
that life-boats or their equivalent should be provided for all persons in all cases, and
that if the provision of these boats would reduce the seaworthiness of the vessel, other
means must be found for securing that accommodation for all persons is provided; for
example, the reduction of the number of persons.

THE CHAIRMAN then raised the question of future meetings, and suggested that
the various Committees of the Conference should meet concurrently.

M. RIESS (Germany) thought that the Committees should certainly not overlap
all day.

M. TRÉFEU (France) suggested that Lord Mersey, the President of the Con-
ference, with the assistance of the Chairmen of the Committees, should draw up a
programme of the meetings of the Committees for some days in advance, so that the
meetings do not overlap. He added that it was very desirable to allow time for the
delegates to work privately between the meetings.

The next meeting was fixed for three o’clock on Monday, the 17th November. The
question of future meetings was left for further consideration.

J. H. BILES, Chairman.

A BULSTEIN, F. P. ROBINSON, Secretaries.
Second Meeting.—November 17, 1913.

THE CHAIRMAN referred to the Report of the previous meeting, which had been circulated to the members of the Committee, and asked whether it was desired to make any alterations or additions. No objection being raised, he declared the Report adopted.

The Chairman then inquired whether any further papers or documents had been received by the Secretaries for circulation. On being informed that none had been received, he asked if any delegation had any for circulation.

M. PEDERSEN (Norway) said that the Norwegian Delegation had a list of all Norwegian passenger ships, showing the boats and life-saving appliances carried. A copy was handed to the Secretaries for reference, and M. Pedersen said that, if desired, he would supply further copies for the use of the Committee.

THE CHAIRMAN then read the following motion, which had been tabled for discussion:

"La Sous-Commission recommande à la Conférence d’adopter le principe que, sous réserve de dispositions adéquates pendant une période transitoire, tous navires à vapeur à passagers, effectuant des voyages au long-cours, porteraient des embarcations ou des engins équitables, en nombre suffisant pour recevoir toutes les personnes embarquées."

"The Sub-Committee recommends the Conference to endorse the principle that, subject to proper provision for a transitional period, all foreign-going passenger steamships should carry sufficient life-boats, or equivalent appliances, to accommodate all persons on board."

M. SCHRECKENTHAL (Austria) said that it was necessary to give a definition of "foreign-going passenger ships," which was the wording used in the English version of the motion. The classification of ships varies in different countries.

M. RIESS (Germany) said that the German Delegation had already laid down in the Memorandum which they had circulated the view of the German Government in regard to this matter. All vessels plying beyond 150 miles from the shore should be regarded as "foreign-going" for the purposes of this Conference. It seemed to them that this limit worked out satisfactorily. For example, the British Government regard a vessel plying from Edinburgh to Brest as "home trade." Although this is about 420 miles, it would not be more than 150 miles from the shore, and would therefore be outside the scope of the limits proposed.

SIR NORMAN HILL (Great Britain) said that he thought it was primarily a matter for each country to settle for itself as to which of its ships should be regarded as "foreign-going."

M. TREFEU (France) said that if the German proposal were adopted the voyage from Marseilles to Minorca would be "foreign-going." This was not desirable. As he understood it, the Conference was concerned with navigation on the high seas, and he deprecated making the task of the Committee more complicated by including coasting voyages. He would suggest confining the discussion to navigation on the great oceanic routes.

SIR NORMAN HILL (Great Britain) said that the Committee all had in mind ocean voyages. Was it possible to start with that as a basis and gradually extend the definition?

GENERAL UHLER (United States of America) said that the United States had very few trans-oceanic vessels. They classified their ships as "ocean steamers"—i.e., those plying more than 20 miles from land—"coastwise steamers," "lake, bay, or sound steamers," and "river steamers." All ocean steamers were required to carry boats, or their substitutes, for all on board. In his opinion, it would be better to leave each nation to decide which of its vessels should be regarded as ocean-going, on the understanding that all trans-oceanic trade outside a certain distance from the shore must be regarded as ocean-going for the purposes of this Conference.
M. TRÉFEU (France) said that the term "ocean-going" was preferable to "foreign-going," which had no significance in French. "Foreign-going" and "au long-cours" are not synonymous terms.

M. BORIS (France) pointed out that the difficulty of definition was not limited to this Committee. The voyage across the English Channel should not be treated in the same way as a long voyage, for assistance is easily obtainable in those waters. The word "ocean-going" is therefore very suitable. The matter of definition should be left to the Committee on Certificates or the "Commission de Rédaction."

THE CHAIRMAN said that the term "foreign-going" is defined in the British Merchant Shipping Act as follows:—

"Foreign-going ship’ includes every ship employed in trading or going between some place or places in the United Kingdom, and some place or places situate beyond the following limits: that is to say, the coasts of the United Kingdom, the Channel Islands, the Isle of Man, and the Continent of Europe between the River Elbe and Brest inclusive."

It is clear that the Conference should not deal with voyages which were not international. He suggested that each delegation should inform the Secretaries in writing what is regarded by the Government which it represents as "foreign-going" for the purpose of this motion. (Agreed.)

M. TRÉFEU (France) asked that all resolutions put to the vote should be framed in English and French. The Chairman promised that this should be done.

MR. FURUSETH (United States of America) asked what was meant by "or equivalent appliances." It might include rafts and collapsible boats, which he did not think should be discussed seriously by the Committee. If these words were deleted, the Committee could subsequently define "life-boats."

M. TRÉFEU (France) said that he wished to oppose the deletion of these words.

THE CHAIRMAN here proposed, and SIR NOEL MAN HILL (Great Britain) seconded, the formal adoption of the resolution in its original form.

MR. FURUSETH (United States of America) formally proposed to delete the words "or equivalent appliances." This amendment not being seconded, the Chairman ruled that it was rejected.

THE CHAIRMAN then asked whether, subject to a satisfactory definition of "foreign-going" being devised, the Committee was prepared to adopt the resolution as proposed. (Agreed.)

CAPTAIN BULLARD (United States of America) pointed out that, in his opinion, the effect of this resolution was to leave to each country the right to decide which of its ships should carry boats for all.

THE CHAIRMAN then formally moved, and GENERAL UHLER (United States of America) seconded, the adoption of the second resolution on the Agenda, which was as follows:—

French.

"La Sous-Commission est d'avis que la Conférence devrait établir des principes généraux relatifs aux mesures ayant pour objet de prévenir, de déceler et d'éteindre l'incendie à bord de navires à vapeur à passagers pratiquant le long-cours; et il est proposé que, subseqemment, la Sous-Commission examine quels devront être les principes en question."

English.

"The Sub-Committee is of opinion that general principles relating to the measures necessary for preventing, detecting, and extinguishing fire on foreign-going passenger steamships should be laid down by the Conference, and it is proposed that this Sub-Committee should forthwith consider what those principles should be."

(Carried nem. con.)

THE CHAIRMAN added that the American Delegation would propose, for the consideration of the Committee, a draft of general principles in regard to the prevention and detection of fire. As regards "fire-extinguishing appliances," draft rules, prepared
by the Merchant Shipping Advisory Committee to the Board of Trade, had been circulated for discussion, and he called upon Sir Norman Hill (Great Britain), who was the Chairman of that Committee, to open the discussion.

SIR NORMAN HILL (Great Britain) said that the draft rules circulated to the Committee had been drawn up by the Committee referred to by the Chairman after a long and thorough enquiry, in which they were assisted by Mr. Foster King, the Chief Surveyor of the British Corporation, Mr. Milton, the Chief Engineer of "Lloyd's Register," and other distinguished gentlemen. Evidence was taken from the chief Salvage Societies and Underwriters' Associations.

The rules proposed to divide ocean-going passenger steamships into two classes only. The Committee found that there were not such differences in the character of the fires met with and of the appliances to make a more detailed classification necessary.

The Committee decided that, whenever it is possible to get at the fire, water is the best means of dealing with it. It is therefore essential that there should always be a sufficient supply of water available. In the cargo spaces the rules also require that steam should be available. The Committee tried all kinds of gases, including the waste gases from the furnaces, but nothing appeared so easily handled and so certain in its action as steam. Steam is particularly valuable in keeping fire in closed spaces under control.

The rule as to the bunker spaces is specially worded so that the water pipes, &c., need not be in the bunkers themselves, provided the stream of water is available.

In conclusion, Sir Norman Hill formally moved the adoption of the draft, in order that it might be discussed.

MR. HAVELOCK WILSON (Great Britain) said that he was a member of the Merchant Shipping Advisory Committee, and that he wished to endorse what Sir Norman Hill had said.

THE CHAIRMAN suggested that the draft might be adopted as a whole, in order that it could be discussed clause by clause.

M. TRÉPÉU (France) said that if this draft were put forward for adoption at this juncture, many members of the Committee would have to express an opinion on the draft rules without having had time even to read them.

M. RIESS (Germany) said that the German delegates were not yet ready to discuss the question of fire appliances, and that they proposed to follow the order in the paper of "Questions before the Conference," which had been circulated by the British Government.

THE CHAIRMAN explained that it had been necessary to deal with the question of fire first, in order to allow the American Delegation to bring up the question of fire prevention and detection. The procedure adopted had allowed this to be done, and at the next meeting, as it appeared to be the wish of the Committee, the question of boats and life-saving appliances should be dealt with.

Subsequent meetings for the current week were fixed for—

Thursday, the 20th November, at 10 A.M.
Friday, the 21st November, at 3 P.M.

F. P. ROBINSON, Secretaries.
A. BULFINCK, Secretaries.

J. H. BILES, Chairman.
Third Meeting.—November 20, 1913.

THE Minutes of the previous meeting, after slight amendment at the instance of the German and French Delegations, were approved.

THE CHAIRMAN referred again to the suggestion that each delegation should give to the Secretary a statement in writing of what it regarded as “foreign-going ships” for the purpose of the Convention.

At the previous meeting the following resolution had been passed:—

“The Sub-Committee recommends the Conference to endorse the principle that, subject to proper provision for a transitional period, all foreign-going passenger steamships should carry sufficient life-boats or equivalent appliances to accommodate all persons on board.”

The question of the definition of the term “foreign-going” had been left for further consideration, and the Committee would now proceed to consider what arrangements shall be made in regard to the boats or their equivalent in the case of vessels which have to carry boat accommodation for all on board.

Many of the countries have recently considered very fully the question of life-boats and life-saving appliances. In Great Britain the Boats and Davits Committee have made their views public in their two reports, and in many other cases the results of the enquiries in the different countries are available. The delegates are therefore fairly well informed as to what other countries have been thinking and saying in regard to this matter. Presumably the Committee intends to make a report to the Conference giving detailed rules in regard to the life-saving appliances to be carried on ocean-going steamships. If the Committee adopts a procedure consisting of a series of resolutions, it will be necessary at a later stage to translate these resolutions into detailed regulations. It seems therefore desirable at this stage to take up an arranged agenda, and to go through all points of detail separately and in turn. With that object in view, a draft of rules has been prepared by the British Delegation and has been circulated to the members of the Committee. This draft has been framed to cover, so far as possible, the views expressed by the British Boats and Davits Committee, and also the views which are believed to be held by other countries. The draft is the result of long consideration and careful discussion on the part of a large number of the gentlemen who are present at this Conference as delegates. As Chairman he would therefore like to suggest that the draft should be adopted as an agenda on which the Committee could work. If it is so adopted, it could be subsequently considered clause by clause.

As regards the contents of the draft, the underlying principle was that there shall be sufficient accommodation in life-boats, or their equivalent, for all persons on board. In cases in which the number of persons is so large that some of the boats would have to be stowed in places not directly under davits, improved rafts are allowed under certain conditions. When the Committee reach the rule dealing with rafts, it will be possible to discuss fully the relative value of rafts and life-boats. It is not, however, necessary to discuss that question at this point. Should the Committee decide that rafts cannot be regarded as the equivalent of life-boats under any circumstances, the draft can easily be amended accordingly.

The draft deals first with the different types of life-boats. Under Class 1 there is the ordinary open life-boat fitted with internal buoyancy only; the ordinary open life-boat fitted with internal and external buoyancy; the life-boat constructed so that people can be accommodated under the deck (this life-boat must necessarily be larger than the life-boat in general use at the present time), and the life-boat in which the buoyancy is situated in the bottom of the boat as well as the sides. These boats are regarded as the best type of boat. Class 2 consists of boats with collapsible bulwarks, which, while possessing great buoyancy and stability, are easier to stow than the boats of Class 1. Class 2 A is an open life-boat, with the upper part of the sides collapsible. Class 2 B is the same as the life-boat Class 1 D, except that the bulwarks are collapsible. Class 2 C is the ordinary flush-deck life-boat, with collapsible bulwarks. Class 3 is the ordinary open life-boat, with no buoyancy.

The remainder of Rule 1, after making provision for motor-boats, is framed with a view to securing that the dimensions and arrangements of the boats are such that they will do their work properly.
Rule 2 deals with the question of the capacity of the boats, and it should be noted that capacity does not necessarily mean volume. For example, in decked life-boats the capacity to carry the people is calculated from the deck area; but it will be seen later that it is necessary to express the capacity of decked boats for carrying people in some term analogous to volume.

Rule 3 deals with the number of boats to be carried, differentiating between the different classes. Subject to the provision that no ship need be fitted with a number of davits greater than the number of boats required to accommodate all persons on board, a minimum number of sets of davits is required. Upon two-thirds of these life-boats must be fitted; the remainder may have any other boat of Class I attached. In cases where all the boats cannot be carried directly attached to davits, a row of boats is to be placed immediately under the boats attached to davits. If further accommodation is required, additional boats must be carried, until accommodation has been provided in boats for 75 per cent. of the persons on board. After that, an option is left to the shipowner of providing either boats or rafts for the remainder of the persons.

After this brief explanation of the outlines of the proposed draft, the Chairman formally moved that the draft should be adopted by the Committee as an agenda, and should be considered in detail, clause by clause.

M. RIESS (Germany) said that the German Delegation were prepared to accept the draft submitted as an agenda. It would be necessary, however, for the German Delegation to compare the draft with the proposals which they had already put forward. He was prepared to second the Chairman’s proposal.

It was accordingly decided that the draft submitted by the British Delegation should be adopted as an agenda for the meetings of the Committee.

M. R. HAVELOCK WILSON (Great Britain) suggested that models of all the boats referred to should be obtained.

THE CHAIRMAN undertook that this should be done, if possible.

THE HON. THOMAS MACKENZIE (New Zealand) suggested that a demonstration of the different types of boats should be arranged in the Thames for the information of the Committee.

M. BORIS (France) said that possibly such a demonstration would be interesting, but that, so far as the French Delegation were concerned, they were of opinion that all the necessary tests had been carried out by the British Boats and Davits Committee, in whose report they (the French Delegation) felt complete confidence could be placed. They did not consider that it was necessary to repeat the tests made by the British Boats and Davits Committee, and such a demonstration as that proposed would only delay the work of the Committee.

M. TRÉFÉEU (France) said that he wished to associate himself with M. Boris’s remarks, and added that such tests as had been made by the French authorities agreed with the results of the British Boats and Davits Committee.

THE CHAIRMAN said that if any experiments were made they should be made by the Committee themselves and not by inventors interested in the particular appliances. Mr. H. B. Wortley, of the firm of Messrs. Alfred Holt and Co., of Liverpool, who had been a member of the British Boats and Davits Committee, had offered to place at the disposal of the Committee the rafts and boats which had been used by that Committee in preparing their report. If, therefore, it was found desirable at some later date for the Committee to make any further experiments, it would be possible to arrange with Mr. Wortley for this to be done.

M. R. HAVELOCK WILSON (Great Britain) said that he had written to the Board of Trade suggesting that the organisation which he represented (the Seamen’s Union) should arrange a demonstration of different inventions for the inspection of the Committee.

The Committee then proceeded to consider the draft proposals in detail.

**Rule 1.**

*Boats to be accepted for the purpose of these rules shall be classified as follows:—*

**Class 1a.**

*Open life-boats with internal buoyancy only. These boats shall have, for every*
10 cubic feet of their capacity, at least 1 cubic foot of efficient airtight compartments. If the life-boat is of metal, the capacity of the airtight compartments is to be increased so that the buoyancy of the metal boat may be at least as great as that of the wooden boat.

GENERAL UHLER (United States of America) said that he wished, in the first instance, to congratulate the British Boats and Davits Committee on their work and on their two reports. The life-boat of Class 1A is the life-boat which is recognised all the world over, having 1 cubic foot of buoyancy for each 10 cubic feet of capacity. He accordingly proposed the adoption of the clause referring to the boat of Class of 1A. This was unanimously agreed to.

Class 1B.

Open life-boats with internal and external buoyancy. These boats shall have for every 10 feet of their capacity at least three-fourths of a cubic foot of efficient airtight compartments.

The external buoyancy may be of solid cork or of other equally efficient material, and, if of cork, its volume shall be not less than one-third of a cubic foot for every 10 cubic feet of the boat's capacity. If the life-boat is of metal the internal and external buoyancy is to be increased as described in the case of type 1A.

M. RIESS (Germany) said that the German Delegation considered this boat as the best type of boat, because the outside buoyancy not only gives greater stability, but also protects the boat from damage against the side of the ship. The German Delegation would, however, prefer that the word "solid" in the first line of the second paragraph should be deleted.

M. BORIS (France) said that the French delegates were prepared to agree with the German Delegation that a boat of this class was preferable, from many points of view, to the boat of Class 1A. They wished, however, to draw attention to the importance of the quality of the cork, or equivalent material, employed in the construction of the external buoyancy, and he suggested that some regulation on the lines of the French rule should be adopted. The French rule in question being:

"Ne sont admis pour la constitution des bouées, gilets et autres engins flottants que le liège plein, le kapok, ou autres substances de flottabilité au moins égale—à l'exclusion de tout corps sans cohésion propre, et notamment du liège en grains, déchets ou copeaux.

"Aucun engin flottant ne doit avoir besoin d'être gonflé avant de servir."

M. SCHRECKENTHAL (Austria) said that the Austrian Government had a similar rule. They required that the external buoyancy must be made up of cork in large pieces.

GENERAL UHLER (United States of America) suggested that it would be well at this stage to adopt a resolution that, wherever buoyancy is alluded to in the rules, it must not be composed of granulated cork or of any material inflated with air.

THE CHAIRMAN said that it appeared to him that the question raised by M. Riess was whether the Conference should decide as to what is "equally efficient material," or whether this question should be left to each administration.

GENERAL UHLER (United States of America) said that the American Delegation were of opinion that buoyancy provided by granulated cork or inflation should be prohibited by the Conference.

M. SCHRECKENTHAL (Austria) proposed that "external buoyancy must consist of large pieces of cork covered with canvas and painted with thick oil paint."

M. POLIS (Germany) said that large pieces of cork broke through the canvas of the fenders when the boat knocked against the side of the ship. In his opinion the proper size for the pieces of cork was about the size of ordinary bottle corks. He added, that if the canvas of the fender is broken in any place, the method of attaching it to the boat would only allow the cork to fall out for about 18 inches of the length of the fender.
M. WIERDSMA (Netherlands) said that his experience confirmed the view put forward by M. Polis.

M. BORIS said that the French Delegation agreed that very large pieces of cork were not desirable. On the other hand the cork must not be so small as to fall out of any hole which might be made in the canvas, or to be liable to pulverise.

M. WALTER (Germany) said that in the Nord-Deutscher Lloyd cork fenders made of small pieces of cork had been fitted on all the boats for many years. The boats were used a great deal, and the fenders had been found to be quite satisfactory.

MR. HAVELOCK WILSON (Great Britain) and CAPTAIN YOUNG (Great Britain) both urged that fenders consisting of small pieces of cork had greater elasticity than those made of solid cork, and were therefore greater protection to the boat from damage against the side of the ship.

The Chairman suggested that the second paragraph of the clause dealing with boats of Class 1 b, should be amended to read as follows: “The external buoyancy may be of cork or other equally efficient material, but such buoyancy shall not be secured by the use of rushes, cork shavings, or other shavings, or loose granulated cork, or by any means depending upon inflations by air. If of cork, its volume shall not be less than one-third of a cubic foot for every 10 cubic feet of the boat’s capacity,” &c.

GENERAL UHLER (United States of America) said that this wording would admit kapok, which is very dangerous material, as it is practically impossible to tell the good from the bad. He suggested that kapok should be included in the list of prohibited materials.

M. BORIS (France) said that they had not entirely bad reports of kapok and he thought it was not desirable entirely to condemn it.

M. EVANG (Norway) said that the Norwegian Delegation had found kapok very unsatisfactory, and were of the opinion that both kapok and reindeer’s hair should be prohibited.

SIR NORMAN HILL (Great Britain) said that the discussion clearly indicated the danger of specifying what should not be admitted as buoyancy. If kapok is added to the list there will be a tendency for each administration to accept any material which is not prohibited specifically.

After some further discussion it was decided to adopt the wording proposed by the Chairman.

Class 1 c.

Decked life-boats so constructed that persons can be accommodated below the deck and having ample freeboard.

The Chairman said that the British Boats and Davits Committee had come to the conclusion that the ordinary 30-foot life-boat with sixty people in it is not the safest appliance possible. Though they had had put before them many suggestions for floating deck-houses, none of these proposals had been put in a definite form. These two considerations led them to devise the large unswamping boat with the people stowed below the deck. Such a boat must, of course, be considerably larger than the present life-boat. It is really a little ship. The difficulties raised by the problem are two, viz.: that of getting the boat out and that of getting the boat into the water without damage against the side of the ship. In certain cases the boat would simply be allowed to float off; but in others, for example in the case of fire, it would be necessary to launch the boats, and davits for handling these boats were at present under construction experimentally.

M. RIESS (Germany) said that the German Delegation did not appreciate the utility of the boat. They found difficulty in contemplating the handling of a boat weighing 30 tons. They did not object, however, to the boat being left in the list of boats in the suggested draft, because it would not be necessary for any shipowner to adopt it. Personally, however, he did not consider that the idea had been sufficiently developed for it to be included.

GENERAL UHLER (United States of America) said that it was clear that, somebody had given a great deal of attention and thought to devising this large boat,
and he proposed that the Committee should postpone further consideration of this clause until the boat and appliances have been constructed and can be inspected.

M. BORIS (France) said that the French Delegation had had no experience of this type of boat, and therefore they hesitated to agree to its being included in the list, especially as the provision for the acceptance of other equivalent types of boats at the bottom of page 1 of the draft Rules appeared to make ample provision for the adoption of this type of boat if subsequent experience proved it to be a satisfactory appliance.

M. EVANG (Norway) referred to two inventions with which the Norwegian Government had had some experience, and which appeared to come under Class 1 c. He would like to put before the Committee drawings of these appliances, and suggested that the discussion on the question should be deferred.

It was accordingly agreed to postpone the discussion on the boat Class 1 c until a later date, but for the present it was left in the list.

**Class 1 d.**

*Deck life-boats in which persons cannot be accommodated below deck, and having a well-deck, the area of which is at least 30 per cent. of the deck area, together with fixed watertight bulwarks and freeboard stated below.*

THE CHAIRMAN proposed to insert after the words "well-deck" the words "above the water line." He explained that the boat was that proposed by the British Boats and Davits Committee, and that it was really an ordinary decked boat with winged buoyancy and fixed bulwarks. Drawings of the boat were exhibited.

M. RIESS (Germany) suggested that boats of this type, and also boats of Classes 2 b and 2 c, should be described as "pontoon boats," so as to distinguish them from the boats of Class 1 c. The clause, thus amended, was adopted.

**Class 2 a.**

*Open life-boats having the upper part of the sides collapsible. A boat of this type shall have efficient airtight compartments of such volume that the boat shall be capable of floating even if the collapsible sides are destroyed, and the boat is completely filled with water and loaded with iron weights equal to the full complement of persons and equipment, allowing 140 lbs. for each person.*

The watertight compartments of the prescribed volume shall be disposed along the sides and at the ends of the boat, so that an open space is left in the middle of the boat having an area not less than 40 per cent. of the whole area contained within the fixed gunwale.

THE CHAIRMAN explained that this boat was very similar to that in Class 1 a. It is somewhat shallower and has collapsible bulwarks. It is a type with which the German authorities are familiar.

M. RIESS (Germany) said that they would be pleased to describe this boat at the next meeting. They had not yet had time to go into the effect of the figures as to the area of the well, &c. It was accordingly agreed to leave Class 2 a for further consideration.

**Class 2 b.**

*Pontoon life-boats having all the characteristics of type 1 b, except that the bulwarks are collapsible.*

This clause was agreed to without discussion.

**Class 2 c.**

*Pontoon life-boats, in which persons cannot be accommodated below deck, and having a flush deck and watertight collapsible bulwarks, the freeboard being as stated below.*

THE CHAIRMAN explained that this boat was an ordinary decked life-boat of the flush deck type.
M. POLJS (Germany) suggested that the words “flush deck” should be omitted, as no provision was apparently made for boats having a deck with buoyancy tanks arranged round the edge of it. The boats he had in mind would not come under Class 1 b or Class 2 a, because the area of the well would not be as great as 30 per cent. of the whole deck area.

THE CHAIRMAN explained that Class 2 c was intended to apply only to boats of the Engelhardt type with the flush deck, and that the question of altering Class 2 b or 1 b, so as to include the boats that Herr Polis had in mind, would be considered later.

This was agreed to.

The remainder of page 1 of the print was also adopted without discussion.

It is as follows:—

Class 3.

Open boats with rigid sides and without buoyancy.

Boats of other types may be accepted as equivalent to boats of one of the types mentioned above, if the Administration concerned is satisfied by actual trial that the boat in question is as effective as a boat of one of the above types.

Each Administration which accepts a new type of boat in this manner will send particulars of the trials and of the classification of the new boat to the other Administrations concerned.

Before the Committee adjourned, GENERAL UHLER (United States of America) said that the American Delegation had gone into the question of fire prevention. They were of opinion that, of all the dangers the community is subject to, none is so insidious in its origin, and none so susceptible to control. Fire may, to a great extent, be prevented by the prohibition of dangerous cargo, by supervising its stowage, and the exercise of judgment in its allocation. It may be detected by devices which assist the senses, and it may be extinguished by the application of agencies at a man's command. In the name of the American Delegation, he therefore proposed, for the consideration of the Committee, that a resolution to the following effect should be adopted:—

"The several States signatory to this Conference agree to enact such legislation as will, to the fullest possible extent, provide for the prevention, detection, and extinguishing of fire on board ship. The details of the installation and application of such law to be regulated and arranged by the several signatory States."

La Sous-commission recommande que les différents États signataires de la Convention soient d'accord pour édicter une législation capable de prévoir aussi complètement que possible des mesures propres à prévenir, déceler et éteindre l'incendie à bord de navires. Les détails relatifs à la promulgation et à l'édiction de ces lois seront réglés et combinés par les soins des différents États signataires.

He added that the American Delegation, after careful consideration of the question of drawing up regulations in regard to fire prevention, had decided that it would be better to leave the details to the individual States.

The Committee adjourned until Friday, the 21st November, at 3 o'clock.

F. P. ROBINSON, A. BULTINCK, } Secretaries.

J. H. BILES, Chairman.
Fourth Meeting.—November 21, 1913.

THE CHAIRMAN said that the report of the previous meeting was not yet ready. He proposed that in future the Secretaries' report should be printed before circulation; that each delegate should return the proof with any verbal alterations required in the report of his own speeches; and that the Committee should adopt the report at the meeting after circulation, any necessary alterations of importance being made at that meeting. This was agreed.

The Committee then proceeded to consider the draft rules at the point at which they were left at the previous meeting.

Motor Boats.

A motor boat may be accepted as a life-boat if it complies with the requirements laid down for life-boats of Class 1, but, for the purpose of computing the number of persons allowed to be carried, the space occupied by the machinery must be deducted from the gross capacity of the boat. The difference between the weight of the persons excluded and the weight of the machinery must be taken into account in calculating the volume of the buoyancy.

Motor boats shall be allowed as life-boats only to a limited number.

This clause was adopted unanimously.

At this point it was decided to revert to the consideration of the boat Class 2A, the discussion of which had been postponed from the previous meeting at the instance of the German Delegation.

M. RIESS (Germany) explained that although the German Delegation did not consider a boat of Class 2A as of equal value to boats of Class 1A or Class 1B, they considered it superior to boats of Class 2B or Class 2C—pontoon boats. The deep hull with a well gave greater stability when the boat was loaded. The people are more comfortable, and the boat is lighter than the pontoon boats (about 1 ton lighter in a 28-foot boat). The only point in which it is inferior to the pontoon boats is that it is not self-emptying. The German Delegation did not regard this of great importance, for boats of Class 1A and Class 1B are not self-emptying, and the freeboard of the pontoon boats is so small that their unsinkability is open to question. The German Delegation were strongly of opinion that the existing German boats of Class 2A should not be penalised. In this they were not actuated by regard to questions of expense. He accordingly proposed that the wording should be as follows:

"Class 2A.—Open life-boats having the upper part of the sides collapsible. A boat of this type shall have efficient air cases of such volume that the boat shall be capable of floating even if the collapsible sides are destroyed and the boat is completely filled with water. When fully loaded it must have a freeboard in accordance with the following table:

<table>
<thead>
<tr>
<th>Length of Boat</th>
<th>Freeboard</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-90 metres</td>
<td>200 millimetres</td>
</tr>
<tr>
<td>8-50</td>
<td>225</td>
</tr>
<tr>
<td>9-15</td>
<td>250</td>
</tr>
</tbody>
</table>

GENERAL UHLER (United States of America) here referred to the boat adopted by the American Government and which he regarded as the best type of boat. The boat in question has a deck which is really a double bottom. This cellular bottom is divided into 8 divisions. The boat is self-emptying. Ten per cent. of the buoyancy is in a fender, which distributes the effect of a knock against the side of the ship over the whole of the boat. So firmly do the United States authorities believe in this boat that they allow a block coefficient of 0.9 in calculating the capacity. General Uhlir subsequently stated that the boat to which he referred was the "Tandin" boat.

M. BORIS (France) said that the two fundamental conditions governing the acceptance of a boat are (1) a comfortable place for every person; (2) protection
against the sea. The most important condition is protection against a high sea, as was seen in the case of the "Volturno." The best way to provide against a high sea is by freeboard. A boat should therefore be examined from two points of view—freeboard and deck-area. He proposed that the German delegates should make a formal proposal on these lines at the next meeting.

M. HIPWOOD (Great Britain) said that the British Delegation would like to consider the effect of the German proposal, and it was accordingly agreed to postpone the further consideration of the matter until the following meeting.

MAJOR KERSEY (Canada) said that he did not understand what boats were covered by the different classes. He suggested a classification into open life-boats, decked boats, pontoon boats, and open boats without buoyancy.

THE CHAIRMAN said that drawings of all the boats referred to in the draft were available.

General Conditions to be observed in the Construction of all Boats.

*Life-boats of Class 1 and Class 2 shall be pointed at both ends.*

All boats shall be of sufficient strength to enable them to be safely lowered when loaded with their full complement of persons and equipment.

M. RIESS (Germany) said that the German Delegation were prepared to accept this clause.

GENERAL UHLER (United States of America) opposed it on the grounds that the "Lundin" boat was not "pointed at both ends."

It was explained that the words were intended to prevent boats having square sterns, and that the British Board of Trade regarded a "Lundin" boat as "pointed" for the purpose of this rule.

M. BORIS (France) asked in which class the "Lundin" boat would be placed. He added that the French Delegation did not consider it essential that a boat should be pointed at both ends. If there is no strong reason against a boat having a square stern, it is undesirable to introduce a clause which restricts design.

M. HIPWOOD and CAPTAIN YOUNG (Great Britain) explained that the rule as to pointed ends had arisen many years ago when the Royal National Life-Boat Institution of Great Britain had adopted the double-ended boat as a result of the experience of whale-fishers. The majority of life-boats are of this form. The British Delegation were, however, quite agreeable to the deletion of the clause.

As regards the classification of the "Lundin" boat, it was explained that it did not correspond exactly to any of the classes. By the general rule at the bottom of the page, however, the American Government would be empowered to accept it as either a boat of Class 1 or of Class 2, as they thought fit.

M. PEDERSEN (Norway) said that his Government regarded a boat with pointed ends as preferable to one with a square stern.

M. TRÈFEU (France) supported the deletion of the clause, on the grounds that in view of the general use of wireless telegraphy it is not necessary for the boats to move from the scene of the disaster.

The deletion of these words having been agreed to, General Uhler (United States of America) proposed and M. Riess (Germany) seconded the adoption of the rule as amended.

This was agreed to unanimously.

General Conditions to be observed in the Construction of Open Life-boats.

*Open life boats of Class 1 A and Class 1 B shall have a mean sheer of at least half an inch for each foot of their length.*

The air-cases of open life-boats of Class 1 shall be disposed along the sides of the boat; they may also be disposed at the ends of the boat, but not in the bottom of the boat.

[1244—78]
General Conditions to be observed in the Construction of Pontoon Life-boats of Classes 1 and 2.

Pontoon life-boats may be constructed of wood or metal, but life-boats of Class 1 D, or 2 B, or 2 c, if constructed of wood, shall have the bottom and deck made of two thicknesses with textile material between.

Pontoon life-boats built of metal shall be divided into watertight compartments with means of access to each compartment [but decked life-boats of Class 1 c need only have peak bulkheads provided the thickness of the shell plating is at least $\frac{1}{8}$ inch].

THE CHAIRMAN proposed that the last sentence of the second rule [in brackets] should be omitted pending the consideration of boats of Class 1 c, and with this amendment the rules were adopted.

M. Höfst (Denmark), after the clause had been adopted, stated that M. Engelhardt had found it preferable not to make the boats that bore his name with a double thickness of wood, and he suggested that it might be better to leave the builder the option of making the boat of one thickness only.

THE CHAIRMAN said that this point must be raised at a later stage, when the the draft came up for consideration as a whole.

Pontoon Life-boats—Arrangements for clearing Deck of Water.

Pontoon life-boats of all classes shall have efficient means for quickly freeing the deck of water, and the necessary arrangements for freeing the decks shall be determined for each class of boat by a special test. [Proposals as to these tests are given in Appendix II.]

THE CHAIRMAN suggested that, as the Appendix was not yet ready, the consideration of this clause should be postponed.

Freeboard of Pontoon Life-boats.

The freeboard of life-boats of Classes 1 D and 2 B shall be such as to provide a reserve buoyancy of at least 40 per cent. The top of the deck in the well shall be, at its lowest point, not less than $\frac{1}{8}$ per cent. of the length of the boat above the load waterplane, and the top of the deck at the ends of the well shall be not less than $\frac{1}{8}$ per cent. of the length of the boat above the load waterplane.

The freeboard of a pontoon life-boat of Class 2 c shall not be less than that given in the following table, which should be applied without correction in the case of boats which have a mean sheer equal to $\frac{3}{2}$ per cent. of their length. The depth of the boat for use with the table is to be measured vertically from the underside of the garboard strake to the top of the deck at side amidships, and the freeboard is to be measured from the top of the deck at the side amidships when the boat is loaded in fresh water.

<table>
<thead>
<tr>
<th>Depth of Boat</th>
<th>Freeboard in Fresh Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 inches</td>
<td>2$\frac{1}{8}$ inches</td>
</tr>
<tr>
<td>18 &quot;</td>
<td>2$\frac{1}{8}$ &quot;</td>
</tr>
<tr>
<td>24 &quot;</td>
<td>4$\frac{1}{8}$ &quot;</td>
</tr>
<tr>
<td>30 &quot;</td>
<td>6 &quot;</td>
</tr>
</tbody>
</table>

For intermediate depths the freeboard is to be found by interpolation. The above table of freeboards is framed for a mean standard sheer equal to $\frac{3}{2}$ per cent of the boat’s length. If the sheer of the boat is less than the standard, the difference between the actual mean sheer in inches measured at the stem and the stern post and the standard mean sheer in inches is to be divided by 7 and the result added to the freeboard given in the table.

No deduction is to be made from the freeboard on account of the deck beams having camber or on account of the sheer being greater than the standard sheer.

The freeboard required is not affected by the length of the boat.

THE CHAIRMAN stated that, in order to secure in boats of Class 2 c a reserve buoyancy of 40 per cent., the specified freeboards should be $2\frac{7}{8}$ inches, $4\frac{1}{8}$ inches, $5\frac{1}{2}$ inches, $7\frac{1}{2}$ inches, instead of $2\frac{3}{4}$ inches, $3\frac{1}{8}$ inches, $4\frac{1}{8}$ inches, 6 inches.
M. RIESS (Germany) said that the German Delegation were prepared to support the rule, provided the actual figures were regarded as subject to revision at a later meeting. They had not had time to calculate the exact effect of the figures proposed. Subject to this proviso the clause was adopted unanimously.

RULE 2.—FORM, CAPACITY, AND NUMBER OF PERSONS.

(a) Capacity of Open Boats.

Subject to the provisions stated below, the capacity of open boats, other than boats of Class 2 A, shall be determined by means of Stirling’s Rule, the measurements being taken in accordance with regulations prescribed in Appendix III.

THE CHAIRMAN explained that Appendix III was not ready, but that it was not essential to have it at this stage.

M. RIESS (Germany) said that the German Delegation proposed that the well-known block coefficient rule \( L \times B \times H \times 0.6 \) should be retained unless either the owners or the surveyors were dissatisfied with the capacity obtained in this manner. The German Government had found that in the majority of cases the formula gives the same result as Stirling’s Rule, and it is only in boats with very fine ends that the actual capacity is less than that obtained by the formula.

THE CHAIRMAN referred to the recommendation of the British Boats and Davits Committee that Stirling’s Rule should in all cases be used to determine the capacity of open boats. He also referred to the table on page 10 of the Final Report of that Committee, which showed the differences in the capacities of various boats when calculated by the formula and by Stirling’s Rule.

M. RIESS (Germany) said that the figures in the table supported his contention, because they showed that in practically all cases the capacity given by the formula was less than that obtained by Stirling’s Rule.

GENERAL UHLER (United States of America) stated that the formula worked well in the United States. Very fine lines were made impossible by the remainder of the rule.

MR. ARCHER (Great Britain), at the request of the Chairman, then gave a brief account of the origin of the British proposal. He stated that, until quite recent times, the British Board of Trade had employed the coefficient formula. It was found, however, that there was a tendency under this rule for boats to be built with very fine ends on the water line, which were not sufficiently stable. To obviate this, the Board of Trade framed rules imposing a minimum girth measurement at the midship and quarter-length sections. The British Boats and Davits Committee investigated these rules, and found that they were not entirely successful. They suggested, as an alternative, that the capacity should be calculated by exact measurement, thus giving designers an incentive to build full boats. The girth rules were regarded as an arbitrary limitation of design. As to the extra labour involved in the use of Stirling’s Rule, the Board of Trade had gone into the question very fully and found that it would be necessary to take three sections and four measurements at each section. This did not involve much more work than the girth rule. The objection to the proposal of the German Delegation was that the zeal of the surveyor is a variable quantity, and, while one surveyor would accept the coefficient formula, another would demand exact measurement for the same boat.

M. BORIS (France) said that the French Government had endeavoured to prevent fine boats by girth measurements, but that they had found exact measurement a more satisfactory method. Enquiry amongst shipowners and builders revealed the fact that the types of boats used in the mercantile marine were limited in numbers. The employment of exact measurement is not therefore so serious a matter as it might appear. For this reason the French Delegation support the proposal for exact measurement.

At this point the Committee adjourned until Tuesday, the 25th November, at 10 A.M.

F. P. ROBINSON, } Secretaries.
A. BULTINCK,  

J. H. BILES, Chairman.
The Report of the third meeting was adopted.

The Chairman said that he wished to make a statement in regard to future procedure. He would propose, on behalf of the British Delegation, the adoption of each clause in the Draft Rules, and he hoped that some other delegation would be able to second it. If there was no objection, the clause would be held to have been adopted; but each delegation would be at liberty, after the clause had been seconded, to propose another amendment. Such an amendment would, of course, require seconding by the terms of the “Règlement.”

As regards the question of the capacity of open boats, he understood that this clause had been seconded by M. Boris (France) at the last meeting, and that the German delegates wished to propose an amendment.

M. Boris (France) gave a brief résumé of his previous speech in support of this clause, and suggested that, after the words “Stirling’s Rule,” the words “or any equivalent rule” should be added. Each administration might have its own method of exact measurement, for example, Tchebycheff’s Rule.

M. Rieß (Germany) proposed as an amendment that the coefficient formula \((L \times B \times H \times 0.6)\) should be used in all cases except when the owner or the surveyor considered it desirable that the boat should be measured by Stirling’s Rule.

M. Pedersen (Norway) seconded the proposal of the German Delegation.

M. Wierdsma (Netherlands) said that he was in agreement with the German proposal, but that he would also like to see the words “or any equivalent rule” added in accordance with the suggestion of M. Boris.

M. Hipwood (Great Britain) said that he thought there was little difference between the views of the different delegations. Great Britain, if the German proposal were adopted, would instruct their surveyors always to require exact measurements to be made. It would therefore meet the view of the British Delegation if it were made clear that the option to use exact measurement or the coefficient formula was left to each administration instead of to each surveyor. If that proposal met with the view of the Committee, the British Delegation would prepare before the next meeting some formula for consideration.

The Chairman referred to the report of the British Boats and Davits Committee, and explained that the investigations made by that Committee showed that provided the block coefficient was actually 0.6, or more, the boat would be satisfactory. If, however, the block coefficient were less than that, not only would there be less accommodation for the people, but there would be some considerable diminution in stability. If therefore the surveyor suspected a coefficient of less than 0.6 it would be his duty to insist upon exact measurement, while if it were in excess of 0.6, the owner would require that it should be measured by Stirling’s Rule, in order that he might obtain the full number of persons. In this way very few boats would be measured by the coefficient formula in practice.

M. Rieß (Germany) said that the German Delegation concurred in the necessity for securing good boats. They thought, however, that in a case where twelve boats in a ship were all of the same design it would be unnecessary to require the surveyor to measure them all by Stirling’s Rule.

The Chairman, in conclusion, said that the British Delegation would submit a form of words on the lines suggested by M. Hipwood for consideration at the next meeting, and that the point raised by M. Boris as to the use of an equivalent rule had better be left until Appendix III is before the Committee.

If the sheer of the gunwale measured at points one-fourth of the boat’s length from either end exceeds \(\frac{1}{2}\)-inch for each foot of the boat’s length, the depth used in calculating the sectional area of the boat at these points shall not exceed the midship depth plus \(\frac{1}{2}\)-inch for each foot of the boat’s length.

The Chairman explained that this rule was intended to prevent “freak” boats.
M. RIESS (Germany) seconded the rule, and it was adopted unanimously.

If the depth of the boat amidships, measured in accordance with the regulations, is greater than 45 per cent. of the breadth, the depth used in calculating the area of the midship section shall not be greater than 45 per cent. of the breadth and the depth used for the sections at one-quarter of the boat's length from each end shall be 45 per cent. of the breadth amidships plus ½-inch for each foot of the boat's length or the actual depth of the boat at those points, whichever is least.

THE CHAIRMAN said that this rule was intended to secure that the boat has proper proportions and proper sheer.

M. BORIS (France) said that the French Delegation attached great importance to the limitation of the depth of boats. The tendency of boat-builders and shipowners is to make boats deep and fine with a smaller "horizontal area." This tendency involves a reduction in the volume and in the freeboard of the boats. If in the formula \( L \times B \times H \times 0.6 \) the factor \( H \) is increased, the area \( L \times B \) is reduced, and thus the horizontal area becomes too small to accommodate properly the number of persons allowed. The French Delegation wished, therefore, to second the adoption of this clause.

GENERAL UHLER (United States) stated that the American Delegation wished to support the clause.

The clause was unanimously adopted.

During the course of the discussion M. Boris raised the point as to the use of metric measures in the draft.

THE CHAIRMAN explained that it was intended to prepare a French translation of the rules before the whole draft was considered a second time.

In the case of square sterned boats the aftermost area is to be calculated as if the boat were pointed at the stern.

This clause was seconded by General Uhler (United States) and adopted unanimously.

Subject to the following provisions, the number of persons to be allowed for an open life-boat of Class 1 A, or for an open boat of Class 3, shall be found by dividing the capacity in cubic feet by 10, and the number allowed for a life-boat of Class 1 B by dividing the capacity in cubic feet by 9.

THE CHAIRMAN explained that the divisor of 10 had been the established practice for many years. The divisor 9, suggested for use with boats of Class 1 B, is based upon the assumption that the external buoyancy will give the boat greater stability.

M. RIESS (Germany) seconded the clause.

M. PEDERSEN (Norway) suggested that, as the rule stood, it would be possible to decrease the dimensions of the cork fender until it became negligible, and still to secure the divisor of 9, and he enquired what would be the effect of the rule on page 1 of the draft, which specifies that "the external buoyancy may be of cork . . . . and if, of cork, its volume shall not be less than one-third cubic feet of the boat's capacity," if some substance other than cork were allowed.

GENERAL UHLER (United States) asked whether "Balza" wood was an equivalent to cork. In his opinion the clause in question stipulated that the buoyancy must be of cork or of equally efficient material. The rule, therefore, as to the provision of external buoyancy was a standard in terms of cork which could be applied pro rata to any substance which was accepted by the administration as equally efficient.

The question was discussed at some length, and the Chairman finally proposed to add to the rule quoted the words "If of any material other than cork, its volume should be such as to give a result in buoyancy and stability equal to that given by cork" after the sentence ending "for every 10 feet of the boat's cubic capacity."

M. PEDERSEN (Norway) said that this met his view and that he was prepared to accept it.

[1244—78] F
This alteration was accordingly made, and the Committee unanimously adopted the clause under discussion.

The number of persons allowed shall not in any case exceed the number for which seating accommodation is provided, allowing 17 inches of seat for each person. The people who so seated must not interfere with the proper use of oars.

M. RIESS (Germany) said that the German Delegation did not regard 17 inches of seat for each person as necessary, and he therefore proposed the deletion of the words “allowing 17 inches of seat for each person.”

CAPTAIN YOUNG (Great Britain) suggested that the German Delegation had overlooked the fact that the people in the boats would be wearing lifebelts.

M. BORIS (France) said that the French Government had made a number of experiments in regard to this matter, and that they had reached the conclusion that the proper allowance was 38½ centim. (15 inches). They had found, however, that it was not practicable to measure the length of the seats available, owing to the fact that the position of the transverse seats made it impossible to sit upon the whole length of the side seats. They had adopted the principle of limiting the depth of the boat, as such a limit ensures a sufficient horizontal area for the accommodation of the persons. He therefore considered that the wording as amended by the German Delegation was sufficient.

M. WIERDSMA (Netherlands) said that in shore life-boats the general practice is to put the people not only on the seats, but also low down in the boat. This increases the stability.

M. SCHRECKENTHAL (Austria) supported the German proposal.

M. RIESS (Germany) referred to page 18 of the English translation of the German Memorandum, where it was stated that in the life-boat, there called life-boat No. 16, ample accommodation was provided for 78 persons. Under the rule of a divisor 9 this number would be reduced, and therefore there should be more than ample accommodation.

M. ARCHER (Great Britain) said that it was the experience of the British Board of Trade that there is not sufficient accommodation on the side seats and thwarts, but that it is quite easy to fit other seats low down either across the boat or longitudinally. The object of the proposed rule is to ensure that every person will have a seat, so that if the boat is half full of water the people will not stand up and so endanger the stability of the boat. These seats might be fitted about a foot from the bottom. The rule would not impose a limit on the number of persons carried, but would only ensure that proper seats were provided.

SIR NORMAN HILL (Great Britain) said that it did not appear to him that the Committee would have done enough when they had secured that the boats had sufficient buoyancy; in fact, the Committee were agreed that there must be sufficient seating accommodation, and he thought that some trouble might result internationally unless a definite understanding were reached as to what constituted adequate seating accommodation.

M. HIPWOOD (Great Britain) said that it appeared to him that the Committee were all agreed in principle that proper seating accommodation should be provided. Some of the delegations apparently objected to specifying 17 inches for each person. The British Delegation therefore suggested that the Rule should be amended as follows:—

"The number of persons allowed shall not in any case exceed the number for which proper seating accommodation is provided. The people when seated must not interfere with the proper use of the oars."

M. RIESS (Germany) seconded this amendment, which was unanimously adopted.

If the depth of a boat exceeds 4 feet the number of persons found by the above rule shall not be allowed until the boat has been tried in the water with that number of persons on board, wearing lifebelts, but until the test has been made the number of persons shall be reduced in the proportion which 4 feet bears to the actual depth of the boat.

M. BORIS (France) seconded this clause, which was adopted unanimously.
(b) Open Life-boats of Class 2 a.

The area of the surface contained within the fixed gunwale of the boat shall be determined in accordance with regulations prescribed in Appendix III.

Subject to the following provisions, the number of persons to be allowed for a boat of this type shall be found by dividing the area of the surface in square feet by 3'5.

The number of persons allowed shall not exceed the number for which seating accommodation is provided, allowing 17 inches of seat for each person. The people so seated must not interfere with the proper use of oars.

The number of persons shall not exceed the number due to the volume of the air-tight compartments, allowing 140 lbs. of iron for each person (see Rule 1).

The capacity in cubic feet of a boat of this type shall be deemed to be the number of persons found by the above method multiplied by 10.

In open boats with very fine ends, the number of persons should be limited by an appropriate formula; and another appropriate formula should be used for the purpose of preventing open boats being made too full in form.

THE CHAIRMAN said that the consideration of this clause, with the exception of the last paragraph, would have to be postponed until the German Delegation were ready to settle finally the questions in regard to this type of boat, which had been left over from the previous meeting. He therefore proposed the adoption of the last clause only.

M. RIESS (Germany) seconded this, and it was unanimously adopted.

The Committee then returned to the consideration of the clause headed “Freeboard of Pontoon Boats,” on the previous page of the draft rules.

M. RIESS (Germany) said that the German Delegation had made a number of calculations in regard to the proposed reserve buoyancy of 40 per cent. They regard this figure as rather high, and suggest 35 or 36 per cent.

M. ARCHER (Great Britain) said that the British Board of Trade had had considerable experience of deck boats of various types, and that they had found that the Engelhardt boat had a reserve buoyancy of about 25 per cent. This they regarded as too small. As regards boats with a well, the only type which they had accepted had a reserve buoyancy of 40 per cent. They were prepared, however, to accept 35 per cent., if that would meet the views of the German Delegation.

M. RIESS (Germany) said that the German Delegation were prepared to second the adoption of this clause with the proposed amendment. This was unanimously agreed.

THE CHAIRMAN pointed out that the list of freeboards in the second paragraph would require to be altered so as to correspond with the new reserve buoyancy. This was agreed to.

(a.) Life-boats of Classes [1 c], 1 b, 2 b, and 2 c.

The number of persons to be allowed for boats of these classes shall be subject to the requirement that there shall be seating accommodation for all persons without interfering with the use of oars. The raised part of the deck at the sides of the well in boats of Class 1 d and Class 2 b may be measured for seating accommodation.

M. RIESS (Germany) seconded the clause which was adopted after the word “measure” in the last line had been altered into “allowed” at the instance of M. Loeviaguin (Russia).

Classes 1 d and 2 b.—The number of persons allowed shall not exceed the number the boat is capable of carrying with the freeboard stated in Rule 1, allowing 140 lb. as the weight of each person.

This was seconded by General Uhler and adopted unanimously.

The area of the deck shall be measured in accordance with regulations prescribed in Appendix III.

Subject to the above conditions, the number of persons to be allowed shall be found by dividing the area of the deck in square feet by 3'5.
THE CHAIRMAN explained that the regulations referred to were, in general terms, that the area should be measured to the inside of the gunwale.

M. MULLER (Netherlands) seconded the clause.

M. RIESS (Germany) pointed out that this was the third rule governing the number of persons to be carried: first, there was freeboard; then the requirement of 140 lbs. weight for each person; and now a minimum deck area. The German Delegation did not consider so many conditions were necessary or desirable.

M. KROGH (Denmark) agreed with M. Riess.

GENERAL UHLER (United States) said that it was clear that there must be other factors besides mere cubic capacity in determining the number of persons to be carried, and that, in his opinion, deck space was a very important consideration.

M. POLIS (Germany) said that his company (the Hamburg-America Line) had several boats of this type about 28 feet by 9 feet 6 inches, in which 81 people can be seated if the boat is loaded until the deck is awash. With 72 people there is adequate freeboard, and the people can all be conveniently seated. A divisor of 3.5, as suggested, would reduce the number to 65 or 66, and he did not think that this was right, as it had been proved that such boats could carry 72 people properly.

THE CHAIRMAN said that the Committee should first decide whether it was desirable to impose a rule as to a minimum deck area per person. The actual figure could be settled afterwards. The rules already provided for buoyancy and for weight-carrying capacity. If no limit is placed upon the deck area the boat may be made narrower and deeper without in any way reducing the number of persons.

M. BORIS (France) said that the French Delegation considered it very important that there should be a limit of deck area in order to prevent a reduction in the area of the deck and a consequent diminution of stability. The rule at present under discussion corresponds to the limitation of depth agreed to for the case of open boats, which, as he had shown, was in reality an area condition.

M. POLIS said that the German Delegation would be willing to accept the rule if the area per person were reduced to 2 square feet.

CAPTAIN YOUNG (Great Britain) suggested a compromise of 3.25 square feet.

The German Delegation then stated that they were prepared to accept the rule, subject to a further consideration of the actual figure. On this understanding the clause was adopted.

Class 2 c.—The number of persons allowed shall not exceed the number the boat is capable of carrying with the freeboard stated in Rule 1., allowing 140 lbs. as the weight of each person.

M. RIESS (Germany) seconded this clause, which was adopted unanimously.

The number of persons to be allowed shall be found in the same manner as in the case of Classes 1 d and 2 b, but the area of the deck in square feet shall be divided by 4.

THE CHAIRMAN said that he presumed the Committee were agreed upon the principle of a limit of deck area. The question for discussion was whether 4 square feet was a suitable figure.

M. RIESS (Germany) seconded the proposal.

M. KROGH (Denmark) proposed to add the following clause: “If the space below the deck is filled with cork or other buoyant material of equal efficiency, the area of the deck shall be divided by 3.25.”

He explained that the reason he made this proposal was that the Engelhardt boat is a self-emptying boat and, if filled with cork, is very safe, even when damaged. Moreover, the cork tends to increase the stability, and the rules already provided for a considerably increased freeboard. He thought, therefore, that an Engelhardt boat, improved in this manner, should be regarded as equal to a boat of Class 1 d and Class 2 a.

M. MULLER (Netherlands) seconded M. Krogh’s proposition.
M. ARCHER (Great Britain) said that the British Board of Trade had had considerable experience with the Engelhardt boats. When first these boats were introduced they had adopted a divisor of 3'8 feet, but the surveyors had said that there was not room for the number of people obtained by this divisor. Further, they had discovered that when water enters the boat, whether filled with cork or not, the stability is seriously reduced, and they therefore did not regard boats of this type in so favourable a light as the Danish Delegation.

After some further discussion M. HIPWOOD (Great Britain) said that the British Delegation were prepared to accept a divisor of 3'5 for all boats of Class 2c, in view of the fact that the rules now stipulated that boats of this class, if built of wood, should have a double skin.

M. KROGH (Denmark) said he was prepared to accept the amendment, but added that, in his opinion, the Engelhardt boat without cork would hardly be accepted in Danish ships under the same conditions as the boat filled with cork.

The clause so amended was adopted unanimously.

_The capacity in cubic feet of pontoon boats of all classes shall be deemed to be the number of persons found by the above method multiplied by 10._

This clause was seconded by M. Riess (Germany) and carried unanimously.

General.

_Each of the prescribed boats must have a capacity of at least 125 cubic feet._
_In all boats two children under 12 shall be counted as one adult._

These clauses were seconded by M. Riess (Germany) and adopted unanimously.

The Committee adjourned until Wednesday, the 26th November, at 10 o'clock.

F. P. ROBINSON, A. BULFINCH, Secretaries.

J. H. BILES, Chairman.
Sixth Meeting.—November 26, 1913.

THE Report of the fourth meeting was formally adopted.

THE CHAIRMAN then referred to the offer made by the Welin Davit and Engineering Company to give a demonstration of the Lundin boat on the following Saturday in the East India Dock, and asked that any members of the Committee who wished to be present should notify the Secretaries at the end of the meeting. He also referred to an offer which had been made by Mr. Havelock Wilson, on behalf of the Executive Council of the National Sailors' and Firemen's Union, to organise a demonstration of life-saving appliances for the information of the Committee. He suggested that the Committee, before allowing the Union to go to the expense and trouble of organising such a demonstration, should consider whether such a demonstration would be of any real value. His own experience as Chairman of the Boats and Davits Committee had shown that it is of little value to inspect appliances and inventions until they have been thoroughly worked out and installed on a ship. If the Committee desired to see particular types of boats or particular appliances, it would, he suggested, be better for them to see them fitted on ships and in actual operation. Arrangements had already been made for those members of the Committee, who desired, to see demonstrations of the Lundin boat and of the German pontoon boat.

M. HIPWOOD (Great Britain) suggested that the Committee should pass a cordial vote of thanks to the Seamen's Union for their courteous offer, but he thought that the Committee were not yet in a position to accept the offer of the Union.

M. HAVELOCK WILSON said that the offer was made by the Union which he represented entirely with a view to assisting the Committee, and it was for the Committee to decide whether such a demonstration would be of use.

After some further discussion the view suggested by M. Hipwood was adopted, and the Secretary was instructed to write to the Union in the terms of M. Hipwood's proposal.

THE CHAIRMAN then proposed that the first sentence of Rule 2a should be deleted and the following clause inserted:—

"Subject to the provisions stated below, the capacity of open boats other than boats of Class 2a shall be determined by means of Stirling's Rule in the manner shown in Appendix III, or by some other rule giving a similar degree of accuracy; but in cases in which the administration is satisfied that the capacity coefficient of a boat is not less than 0·6, the capacity may be ascertained by multiplying the length, breadth, and depth, as defined in Appendix III, by 0·6. In all cases, however, the owner has the right to claim that the capacity shall be determined by exact measurement."

He stated that this clause had been prepared with a view to meeting the objections of the German Delegation to the compulsory measurement of all boats by Stirling's Rule.

M. RIESS (Germany) seconded the Chairman's proposal, which was carried unanimously.

M. RIESS (Germany) then referred to the paragraph on page 11 of the English translation of the German Memorandum, and proposed that a clause to the effect that every boat shall have fixed to it a brass plate indicating the number of persons it may carry should be inserted in the draft rules.

M. HIPWOOD (Great Britain) said that the British Delegation could accept the proposal of the German Delegation if it were worded in such a way as not to make it obligatory that the boat should be marked with a brass plate.

M. SCHRECKENTHAL (Austria) said that the Austrian Government had a similar rule, and he therefore seconded M. Riess's proposition.

M. TREFEU asked whether the German proposal was that the mark should be a simple general mark or whether it should be an official plate. The French Government had found that shipowners and the captains of small ships in particular sometimes altered the marks placed on the boats.
M. RIESS (Germany) said that the German Delegation intended that these plates should only be issued by the surveying authorities.

GENERAL UHLER (United States) explained that in the United States of America an official brass plate, stamped with the initials of the surveyor, is fastened on every boat. The number of persons for which the boat is certified is also painted on the outside and on one of the thwarts. Full particulars, together with drawings, of every boat are filed at the Central Office, so that if the plate is moved or altered it is easy to trace it.

M. HIPWOOD (Great Britain) said that it was clear that the Committee were agreed that boats should be officially marked in a permanent and clear manner. It is probably unnecessary to lay down in these rules details as to the manner of marking, and the British delegates would endeavour to prepare a form of words for consideration at the next meeting.

RULE 3.—BOATS TO BE PROVIDED.

(a.) Davits must be provided in accordance with the following Table I, each set of davits having a life-boat of Class 1 attached, provided, however, that no ship shall be required to have a larger number of sets of davits than the number of boats required for the accommodation of all persons.

<table>
<thead>
<tr>
<th>Registered length of vessel in feet</th>
<th>Minimum number of sets of davits</th>
<th>Minimum number of open boats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 160</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>160 and under 190</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>190</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>220</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>245</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>270</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>300</td>
<td>8</td>
<td>8</td>
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<tr>
<td>330</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>370</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>410</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>460</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>520</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>580</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>640</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>700</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>760</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>820</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>890</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>960</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

The total number of open life-boats and of decked life-boats of Class 1 c attached to davits must not be less than that given in the third column of the above Table.

If it is not practicable or reasonable to place in any ship the number of sets of davits required by the second column of the above Table, the administration may sanction a smaller number of sets of davits in that ship, provided, however, that the number of sets of davits or other appliances of equal efficiency shall not be less than that given in the third column of the Table. The only case in which this number may be reduced is where a large proportion of the total number of persons carried in a ship is provided for in boats of Class 1 c.

THE CHAIRMAN pointed out that the reservation as to the number of davits to be required in the case of boats of Class 1 c is necessary in view of the large size of these boats. If boats of Class 1 c are allowed, obviously some special arrangements as to the number of davits will be necessary.

M. RIESS (Germany) said that he was prepared to second the adoption of this rule on the understanding that the question of boats of Class 1 c would be further considered.
M. FURUSETH (United States of America) raised the question of rafts, and stated that the whole of Rule 3 appeared to him to be based upon the assumption that in certain cases rafts would be allowed as an equivalent for boats.

Some discussion followed as to whether the question of rafts should be discussed at this point or on some future occasion, and it was finally decided that the matter should be raised on the following amendment which M. Furuseth (United States of America) proposed and which M. Pedersen (Norway) seconded:—

"Before proceeding to consider Rule 3A, the Committee should consider whether rafts may be accepted as part of the life-saving equipment of a foreign-going passenger steamer."

SIR NORMAN HILL (Great Britain) said that the Committee all agreed with M. Furuseth that the principal objective was safety of life, and that there should be no question of any other consideration before that. He then proceeded to quote statistics of loss of life on British passenger vessels in the North Atlantic during the last twenty years. During that period 27,000 voyages were made, and on only six of those voyages were lives of passengers lost. The cases in question were as follows:—

<table>
<thead>
<tr>
<th>Date</th>
<th>Ship</th>
<th>Lives Lost</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 1893</td>
<td>&quot;Pomeranian&quot;</td>
<td>3</td>
</tr>
<tr>
<td>October 1898</td>
<td>&quot;Mohigan&quot;</td>
<td></td>
</tr>
<tr>
<td>September 1909</td>
<td>&quot;Scotsman&quot;</td>
<td>44</td>
</tr>
<tr>
<td>October 1906</td>
<td>&quot;Campania&quot;</td>
<td>11</td>
</tr>
<tr>
<td>January 1909</td>
<td>&quot;Republic&quot;</td>
<td>5</td>
</tr>
<tr>
<td>April 1912</td>
<td>&quot;Titanic&quot;</td>
<td>3</td>
</tr>
</tbody>
</table>

In the cases of the "Pomeranian" and "Campania" the passengers were swept off the deck by a high sea, and in the case of the "Republic" they were killed by the impact of collision.

During these twenty years over 9,000,000 passengers were carried across the Atlantic in British ships. The figures quoted did not take into consideration the members of the crew, because the figures giving the total numbers of the crews carried during the twenty years were not available.

In the case of the "Mohigan," the official report on the disaster showed that there was more than sufficient boat accommodation for all persons on board, and that the cause of the loss of life was that the vessel took a serious list to port and sank in a quarter of an hour. Two boats only were got away, and one of these was picked up capsized and the other was rescued in a swamped condition by the shore life-boats. All the remaining lives saved were persons who were picked up by the shore life-boats from wreckage or rocks. What was wanted in this case was something which would have floated off from the deck. In the case of the "Scotsman," the vessel ran on Belle Isle in smooth foggy weather, and careened over to an angle of 22 degrees. The lives lost were in launching the open boats. In the case of the "Titanic" the finding of the Court of Inquiry showed that eight boats left the ship without the full number of passengers; "craft" which would have floated from the deck of the vessel as she sank would have materially assisted in saving the lives of the persons on board.

These cases then, and the experience of disasters on other routes than the Atlantic, reveal many occasions in which open life-boats have failed signally, and many cases in which rafts, which could have been floated from the deck, would have helped materially in saving lives.

There are two functions to be performed by life-saving appliances on ships: first, to convey the passengers from the ship to a place of safety, whether from ship to ship or ship to shore—and for this purpose the best appliance is an open boat adequately manned; and, second, to provide a means of refuge until help arrives, when a ship is abandoned by all hands. This latter case is illustrated by the "Titanic" disaster. It is the duty of the Committee to provide for both these two services, and it is therefore necessary that when a vessel carries some thousands of lives rafts should be provided for those special circumstances in which rafts would be of particular value. These rafts must, of course, be improved and scientifically designed rafts, such as that devised by the British Boats and Davits Committee. Such rafts will certainly not be carried in order to save expense.

Further, in the case of a vessel which is stranded on a lee shore, a raft may be of more value than a boat for conveying the passengers from the ship to the shore.

In conclusion Sir Norman Hill assured M. Furuseth that the British Delegation had not considered the question of rafts from any point of view except that of safety of life.
M. TRÉFEU (France) said that he considered that statistics of the loss of life at sea were of a somewhat problematical value. He agreed, however, with Sir Norman Hill that it is necessary to provide for all types of disaster, such as the case of stranding on a lee shore. He agreed further that rafts, if adopted, must be constructed on scientific lines. The American rafts consisting of two cylinders with a grating between were not satisfactory, and were in reality nothing but large life-buoys.

M. WIERDSDMA (Netherlands) said that if rafts had been carried on the “Mohican,” the “Titanic,” and the “Volturro,” more people would have been saved. When there is no time to launch a boat it is possible to use a raft. It would therefore be unwise to omit rafts entirely from the life-saving equipment. He disagreed with M. Tréfeu as to the value of the American raft.

M. RIESS (Germany) said that the German Delegation considered that in certain cases rafts were better than boats.

M. WILMINK (Netherlands) referred to the stranding of the s.s. “Veronese” on the Portuguese coast, when the s.s. “Hollandia” of his company had stood by for twenty-four hours without either steamer being able to make use of boats on account of the heavy seas. In this connection he pointed out the necessity of considering the question of what provision should be made for line-throwing appliances, &c., for establishing communication between two ships or between the ship and the shore.

M. FRAGIACOMO (Austria) said that the Austrian Government were the first to demand boats for all. One of their shipowners interpreted this rule literally, and put ninety-five boats on a ship. He himself visited that ship, and formed the opinion that it was positively dangerous. He therefore thought that a certain number of rafts should be carried.

M. LE JEUNE (Belgium) pointed out that, in the case of the “Volturro,” the boats were useless, and suggested that since it is doubtful whether boats would always be efficient, other appliances, such as rafts, should be provided.

CAPTAIN YOUNG (Great Britain) said that the British Board of Trade had previously held the same view as the American Delegation, but that they had come to the conclusion that, provided an efficient raft could be devised, it should be accepted in certain circumstances.

CAPTAIN CHARLES (Great Britain), at the request of the Chairman, stated that he personally was a great believer in rafts. He had recently read accounts of as many shipwrecks as he could obtain, and he had found that they practically all happened in fine weather. In every case, if the ship had been equipped with rafts, more people would have been saved. As regards the statement that rafts would be useless in a very high gale, he thought that in a gale of the strength contemplated no boats of any kind would be able to live.

M. TRÉFEU (France) said that all measures for safety at sea were subject to the condition of the weather. The heavy storm in which the disaster to the “Volturro” occurred was a special case, and the great lesson to be learned from that case was the value of oil on the water. He suggested that the Conference should draw special attention to the value of oil both for calming the waves in the open sea and for dealing with breakers on a lee shore. In reply to M. Le Jeune, he suggested that rafts would have been of little value in the case of the “Volturro,” for, although it might have been possible to launch them, it would not have been possible to get the people on the rafts or to pick up the rafts afterwards.

M. FURUSETH (United States of America) said that it appeared to him that the tenour of the discussion was that rafts were better than boats. The “Titanic” sank in a perfectly smooth sea, and any buoyant appliance whatever would have been sufficient to save the persons on board. The “Titanic” was a more special case than the “Volturro.” If there had been boats for all persons, and if the organisation for launching and manning them had been efficient, there was plenty of time to lower them all. The “Volturro” was burnt in a strong gale, but even then two boats were lowered successfully, whereas no one could have stayed on a raft for five minutes. As regards the contention that a raft is of more value than a boat for landing on a lee shore, he asked why the Life-boat Societies had not adopted rafts in the place of the ordinary shore life-boats. He understood Captain Charles to say that disasters at sea generally happened in smooth water and fine weather. This statement sounded strange coming from a practical seaman; he felt inclined [1244–78]
to dispute its historical accuracy; and he suggested that in such cases a life-jacket would have been more efficient than a raft. Personally, he would rather be in a boat than on a raft in any conditions. If, as is proposed, large for 25 per cent. of the people, who will go on the rafts? The last people left on the large number of the men employed on the ship—not only the stewards and firemen, but even the deck hands—have not been to sea long enough to absorb the tradition of the sea, and it is by no means certain that these men will be content to remain on board till the end. In conclusion, he said he would wish the question of the admission of rafts to be put to the vote.

With the consent of M. Furuseth, the amendment which he had proposed was withdrawn, and the following resolution proposed:

"The Committee, being satisfied that pontoon rafts of the type described in the draft Rules submitted by the British Delegation are of great value as a life-saving appliance, shall now proceed with the consideration of Rule 3."

M. HIPWOOD (Great Britain) said that before formally proposing this resolution he would like to express, on behalf of the Committee, their appreciation of the ability and sincerity with which M. Furuseth had put his case before the Committee, and to express the hope that the American Delegation would recognize that the British Delegation were equally sincere in the views which they held in regard to this matter. The raft which is contemplated by the British Delegation is described fully on page 6 of the draft Rules, and it is only an improved and efficient raft of this kind that would be allowed. Further, he wished to make it clear that rafts would only be allowed when all the davits possible had been fitted in the ship and when all these davits were fully occupied. He then formally moved the adoption of the resolution.

M. BORIS (France) seconded the resolution, which was also supported by M. Riess (Germany).

The resolution was then put to the vote, with the result that there voted for the resolution the delegations of Germany, Austria-Hungary, Belgium, Canada, Denmark, France, Great Britain, Italy, Netherlands, Russia, and Sweden; against the resolution, the delegations of United States of America and Norway. The New Zealand Delegation was not represented at the meeting.

The Committee then returned to the consideration of Rule 3.

M. WILMINCK (Netherlands) suggested that a clause should be added to the table of davits to provide for vessels exceeding 1,030 feet in length.

M. HIPWOOD (Great Britain) undertook to prepare a form of words for this purpose.

M. PEDERSEN (Norway) said that it had not yet been decided exactly what ships would have to comply with these Rules. He was prepared to accept the table of davits for vessels engaged in the trans-oceanic trade, but he thought that if vessels trading in the North Sea were included in the convention—as he hoped they would be—the table should be altered somewhat for smaller ships, as there were many vessels engaged in the North Sea trade which could not comply with the requirements of the table.

M. RIESS (Germany) said that the question of a definition of foreign-going ships would have subsequently to be determined, and that if it were found desirable after this definition had been formulated to revise in any way the decisions of the Committee an opportunity would doubtless be provided.

M. PEDERSEN (Norway) said that he was prepared to agree to the table on that assurance.

M. TRÉFEU (France) suggested that the words "or single davits" should be added after the words "minimum number of sets of davits" at the head of the second column in the table. In the French Navy single davits are used with very satisfactory results, and with considerable simplification of the tackles, &c.
M. HIPWOOD (Great Britain) drew M. Tréfeu's attention to the last paragraph of Rule 4 which provided for the acceptance of alternatives to davits.

M. TREFEU (France) said that he would accept M. Hipwood's assurance that single davits or cranes could be accepted under the rule quoted, but requested that a definite statement to that effect should be inserted in the report of the meeting.

The clause was then adopted unanimously.

The Committee adjourned until Friday, the 28th November, at 10 o'clock.

F. P. Robinson, J. H. Biles, Chairman.
A. Bultinck, Secretaries.
Seventh Meeting.—November 28, 1913.

THE report of the fifth meeting was adopted.

THE CHAIRMAN then formally proposed the insertion, at the end of Rule 2, on p. 4, of the following clause, which had been prepared to meet the wishes of the Committee in regard to the marking of boats:—

"All boats shall be correctly marked, to the satisfaction of the inspecting authority, with prominent and clear characters indicating the dimensions of the boat and number of persons allowed."

M. RIESS (Germany) seconded the clause, which was adopted unanimously.

THE CHAIRMAN proposed the insertion, at the end of Table 1 on p. 4, of the following clause, which had been prepared to meet the views of M. Wilmink (Netherlands):—

"For vessels exceeding 1,030 feet in length the Administration concerned will prescribe the minimum number of sets of davits and the minimum number of open boats in each case as it arises, and will inform the other Administrations of its decision.""

M. PEDERSEN (Norway) seconded the clause, which was unanimously adopted.

When the number of sets of davits, or of other equally effective appliances, is less than required by the second column of the Table, the owner of the ship shall be required to demonstrate by an actual test made in the presence of a Government Surveyor that the arrangements are such that all the boats can be placed in the water, under the standard conditions set forth below, in a time to be determined in accordance with an appropriate formula.①

① Each Administration will determine its own formula.

THE CHAIRMAN pointed out that this clause raised the question of testing the efficiency of the arrangements for launching the boats by a standard based upon the total time taken to put them into the water.

M. BORIS (France) said that the French Life-Saving Appliances Committee had endeavoured to base the arrangements for stowing and launching the boats upon considerations of the time taken to place them in the water. They had found some difficulty in arriving at a satisfactory conclusion on these lines, and they were therefore pleased to adopt the British table of minimum number of davits, which had been based upon long experience and upon the actual conditions on a large number of existing ships. There are, however, some ships in which it will not be possible to comply with the table of davits. They therefore thought it desirable in these cases to have recourse to considerations of time, as the fundamental object of the table of davits was to ensure that the boats would be put into the water in as short a time as possible. In certain cases, such as that of clearing a theatre in the event of a fire, it is comparatively easy to specify a minimum time, but in the case of ships it is not so easy to do this. He regretted that the rule did not state what should be regarded as a reasonable time. Several attempts had been made to secure a suitable formula, but in all cases these formulae had been based upon more or less theoretical conditions. At the same time, it seemed desirable to provide for a standard by which it may be possible to test the relative efficiency of davits and any other appliances which may be invented in the future. For these reasons he wished to propose the adoption of the clause.

M. HIPWOOD (Great Britain) said that the idea of a time limit was a new one to the Board of Trade, and they had not been able to accept it in the form originally proposed by the French Government, which was that it should be the dominant factor in testing the efficiency. The French Delegation had agreed to accept the idea of a davits scale, and the British Delegation agreed with the French Delegation that it was desirable to include, as an alternative criterion, the time test. He proposed that the note, leaving to each Administration the right to determine its own formula for fixing the time limit should be completed by the following words:—

"and will communicate its decision to the other Administrations."
M. BORIS (France) accepted this amendment.
The clause so amended was unanimously adopted.

The conditions of the test shall be as follows:—

(I.) The ship is to be in smooth water and upright.

(II.) The time is the time required from the removal of the boat covers, or such other operation as may be necessary to prepare the boats for lowering until the last boat or life-raft is afloat.

(III.) The number of persons employed in the whole operation must not exceed the total number of boat-hands that will under normal circumstances be carried in the vessel when in service.

(IV.) The boats when being lowered must have their full equipment on board and at least two men.

M. BORIS (France) seconded this clause.

M. FURUSETH (United States of America) enquired what was meant by "boat-hand," and why only two men were required when the boat was launched.

M. HIPWOOD (Great Britain) explained that the question of the definition of "boat-hand" and the number of men required to man the boat would be dealt with later.

CAPTAIN BULLARD (United States of America) said that, as he understood it, these conditions were not intended to be an approximation to the actual conditions under which the boats would be lowered at sea, but were merely inserted to standardize the test. He asked whether, under certain conditions, it would be permissible to employ all the boat-hands on board to launch the first boat, and all but two the second, and so on.

SIR NORMAN HILL (Great Britain) pointed out that the conditions applied to the time taken to launch the whole of the boats. If the master preferred to use all the men available to launch the first boat, leaving all the others unattended, he could do so. The intention is that the test must not be made by a large and specially trained crew.

M. POLIS (Germany) said that the conditions of the test were not practical. In the first place, it is extremely dangerous to lower all the boats on one side of the ship at once.

M. RIESS (Germany) said that the German Delegation were not convinced of the practical utility of the test, and they therefore proposed that it should be omitted. In any case, he suggested that in the previous clause the words "under the standard conditions set forth below" should be replaced by the words "under conditions to be settled by each Government."

M. BORIS (France) said that he was prepared to accept this amendment.

M. HIPWOOD (Great Britain) pointed out that such an alteration would leave much greater discretion to each administration; in order that the test might be of value as a standard by which to test the efficiency of new appliances, it appeared desirable that the conditions under which the test was made should be standardized.

GENERAL UHLER (United States of America) said that tests of this kind seldom bore any direct relation to practical conditions. The point to be decided is whether the test would be valuable; if it were of value, the conditions under which it is carried out should be standardized. He added that under American law a life-boat must be put into the water in two minutes. This test does not prove that a boat can be put into the water in two minutes in a hurricane, but it does prove that the gear is efficient.

M. POLIS (Germany) said that the time would vary with different ships, with the different methods of stowage, and with the individual surveyor.

THE CHAIRMAN said that it appeared that the Committee were under the impression that this test would have to be made to every ship on the go. Such was not the case. The test would only be made once, as it is not intended in any way to be a boat drill.
M. TRÉFEU (France) said that it was important to include a rule requiring the
test to be applied to all the boats, as the experience of the French authorities was that
if the selection of the boat were left to the master the same boats were always launched
on every occasion.

M. FURUSETH (United States of America) said that the Committee must
recognize that the interest of the shipowner is to have as few davits as possible. Any
test, therefore, which is to be employed when a diminution in the number of davits is
claimed should be very strict. In his opinion the rules were too lax, and he thought
that a specific time should be given.

SIR NORMAN HILL (Great Britain) read an extract from the Report of the
British Merchant Shipping Advisory Committee, in which they stated that davits were
the most efficient appliances at present known, but he pointed out that a minority on
that Committee, consisting of representatives of the Officers’ Association, the Seamen’s
Union, and the Engineers’ Union, had expressed the opinion that davits were not a
suitable arrangement for putting boats in the water from the boat-deck of a large
steamer in rough weather. Personally, he knew of no better appliance, but he hoped
that a better appliance would be invented some day, and he thought it desirable to
give naval architects and inventors all possible encouragement to devise a better
appliance to further this purpose.

M. BORIS (France) agreed that it was desirable to leave inventors complete
freedom to devise superior appliances. The conditions of the test enumerated are
quite general, but they provide the basis for comparing the results attained by the
different countries. If these conditions are deleted, the entire question will be left to
the discretion of each administration, and the test will therefore no longer serve as a
basis of comparison. He felt obliged, therefore, to withdraw his support to the German
amendment.

THE CHAIRMAN then put to the meeting the proposal that the clause in the
draft should be adopted.

There voted for the motion: The United States of America, Austria-Hungary,
Belgium, Canada, Denmark, France, Great Britain, Italy, Norway, Russia, and Sweden;
against: Germany and the Netherlands.

M. BORIS (France) said that he thought that the proposal of General Uhler, that
the time required for lowering boats should be specified, should not be overlooked. He
suggested that the time taken to launch boats with davits should provide the standard
for testing any new appliance. In America, as General Uhler had stated, the boat had
to be launched in two minutes. The French law required that all boats attached to
davits should be put into the water in five minutes and boats which were kept swung
out in two minutes. He thought that either Rule 4 or Rule 5 would be a suitable
place in which to insert some such provision.

(b.) If the life-boats attached to davits do not provide accommodation for all
persons, additional life-boats shall be carried of such number and capacity
that the total capacity of the life-boats attached to davits and the additional
life-boats is not less than that given in the table in Appendix I.

M. RIESS (Germany) seconded this clause.

M. SCHRECKENTHAL (Austria) said that he presumed that this clause only
applied to ocean-going ships.

SIR NORMAN HILL (Great Britain) said that this question had been discussed
before, and that it had been decided, for the present, to have regard only to trans-
oceanic voyages. The question of definition was at the present time being considered
by the President of the Conference, who had called an informal meeting of the Chairmen
of the Committees to discuss the matter with him.

M. HIPWOOD (Great Britain) said that the table in Appendix I was based
upon the assumption of an open boat with the boat of Class 2 c underneath. The
alteration in the rule as to the capacity of boats of Class 2 c would necessitate a
Corresponding alteration in the table, but he suggested that this should be dealt with
when the Committee reached Appendix I.

The clause was then unanimously adopted.
The additional life-boats may be either of Class 1 or Class 2.

This clause was seconded by General Uhler and unanimously adopted.

If the before-mentioned life-boats do not provide accommodation for at least 75 per cent. of the persons, then additional life-boats of either Class 1 or Class 2 shall be provided so that there is accommodation for at least 75 per cent. of all persons.

M. RIESS (Germany) seconded the clause.

GENERAL UHLER (United States of America) moved as an amendment that 75 per cent. should be replaced by 100 per cent. throughout the clause.

M. PEDERSEN (Norway) said that he seconded the motion as a matter of form, but, in his opinion, the question of rafts had already been settled.

M. TRÉFEU (France) said that the French Delegation wished to support the figure of 75 per cent.

The amendment was put to the vote and there voted for the amendment: United States of America and Norway; against: Germany, Austria-Hungary, Belgium, Canada, Denmark, France, Great Britain, Italy, the Netherlands, Russia, and Sweden.

The original motion was then adopted.

(c.) Accommodation shall be provided either in life-boats of Class 1 or 2 or by rafts of approved type and construction for all persons.

M. BORIS (France) seconded the clause.

GENERAL UHLER (United States of America) moved the omission of the words "or by rafts of approved type and construction."

This amendment was seconded by M. PEDERSEN, and there voted for the amendment: United States of America and Norway; against: Germany, Austria-Hungary, Belgium, Canada, Denmark, France, Great Britain, Italy, the Netherlands, Russia, and Sweden.

M. RIESS (Germany) pointed out that in Rule 1 provision was made for open boats without buoyancy (Class 3); in order to make the Rules logical he suggested that the words "or Class 3" should be added after "Class 2" in the clause under discussion.

M. PEDERSEN (Norway) asked the British Delegation, and especially those of them who had been members of the British Boats and Davits Committee, whether they considered a boat of Class 3 as good as a raft.

THE CHAIRMAN said that the Boats and Davits Committee had not dealt actually with boats of this type. They had recognized pontoon rafts as an equivalent for boats with buoyancy, and, therefore, it seemed clear that they would have decided that such a raft was superior to a boat without buoyancy.

M. RIESS (Germany) said that the German Delegation did not wish to press the amendment which he had proposed, but unless such amendment were made all reference to a boat of Class 3 should be eliminated from the rules.

M. SCHRECKENTHAL (Austria) suggested the inclusion of the words "or by other equivalent appliances" after the word "construction." He thought that provision should be made for such appliances as floating deck houses.

M. BORIS (France) said that in any case not more than two boats of Class 3 should be allowed. They would be emergency boats.

M. PEDERSEN (Norway) thought that every ship should have one boat each side already swung out for emergency purposes.

M. TRÉFEU (France) said that it was not desirable to delete from the rules all reference to boats of Class 3, as, although they were not of equal value with rafts when the ship is being deserted, they are of value when a man falls overboard. He did not think that their use should be entirely prohibited.
M. HIPWOOD (Great Britain) said that the question of emergency boats had been carefully considered by the Board of Trade, and that they had come to the conclusion that an emergency boat should be fitted with buoyancy.

M. RIESS (Germany) accordingly withdrew his amendment and the question of deleting Clause 3 entirely from the rules was left for consideration when the rules came up for consideration again.

THE CHAIRMAN suggested that M. Schreckenthal should bring up the clause regarding equivalents for rafts when the Committee were considering Rule 7. This was agreed to.

The original clause was then unanimously adopted.

(d.) Open life-boats of the square-sterned type may be admitted under conditions to be determined.

THE CHAIRMAN proposed the deletion of this clause, since the previous rules had been amended so as to permit of the acceptance of square stern-boats.

M. RIESS (Germany) seconded the proposal, which was unanimously adopted.

(e.) The number and capacity of life-boats need in no case be greater than is sufficient to accommodate all persons.

This clause was seconded by M. RIESS (Germany), and unanimously adopted.

(f.) Boats, the body of which requires to be adjusted in order to provide the necessary buoyancy, shall not be allowed as part of the life-saving equipment.

This clause was seconded by GENERAL UHLER, and was unanimously adopted.

M. FURUSETH (United States of America) suggested for the consideration of the Committee the inclusion of a rule requiring that when a vessel has not accommodation for all on board in boats, a statement of that fact shall be included in all the advertisements and tickets issued by the owners, and on the certificate granted by the administration. If a passenger considers that a raft is not as valuable a life-saving appliance as a boat, it is only just that he should know the conditions under which he is sailing.

M. PEDERSEN (Norway) then proposed the following rule:—

"One of the life-boats on each side must be arranged and equipped as an emergency boat, and this boat must not be larger than 200 cubic feet, and must, at sea, always hang in davits swung out ready to be lowered."

M. SCHRECKENTHAL (Austria) seconded this proposal.

SIR NORMAN HILL (Great Britain) said that it was not right to limit an emergency boat for use in such waters as the North Atlantic to 200 cubic feet, and he pointed out that it was impossible, with safety, to carry the boats always swung out.

CAPTAIN YOUNG (Great Britain) suggested that this was a matter which should be left to the captain of the ship.

CAPTAIN CHARLES (Great Britain) pointed out that it was a universal custom to keep one or two boats ready swung out for use in emergency.

M. PEDERSEN (Norway) then withdrew his proposal, and put forward, as an alternative, the following clause:—

"One of the life-boats on each side must be arranged and equipped as an emergency boat. These boats must, at sea, always hang in davits swung out ready to be lowered."

M. SCHRECKENTHAL (Austria) seconded this proposal.

M. WIERDMSMA (Netherlands) pointed out that it was sometimes impossible to keep boats swung out.

M. Pedersen's proposal was accordingly put to the vote, and there voted for the motion: the United States of America, Austria-Hungary, Norway, and Sweden;
against the motion: Germany, Belgium, Canada, Denmark, Great Britain, Italy, the Netherlands, and Russia.

M. TRÉFEU (France) stated that he reserved the vote of the French Delegation, as the motion had not been submitted to the meeting in French. He further stated that this reservation must be held to apply to all previous decisions of the Committee.

THE CHAIRMAN said that the vote of the French Delegation would not on this occasion affect the result of the vote, and he accordingly declared the motion lost.

The Committee then adjourned until Tuesday, the 2nd December, at 10 o'clock.

F. P. ROBINSON, Secretaries.
A. BULFINCH, Secretaries.

J. H. BILES, Chairman.
Eighth Meeting.—December 2, 1913.

THE Reports of the sixth and seventh meetings were approved.

THE CHAIRMAN referred to the decision that the freeboards of pontoon life-boats of Class 2 c should be altered so as to give a reserve buoyancy of 35 per cent. of the total volume of the boat. M. Archer had calculated the freeboards necessary, which were as follows:

<table>
<thead>
<tr>
<th>Depth of Boat.</th>
<th>Freeboard in Fresh Water.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Millimetres.</td>
<td>Inches.</td>
</tr>
<tr>
<td>305</td>
<td>12</td>
</tr>
<tr>
<td>457</td>
<td>18</td>
</tr>
<tr>
<td>610</td>
<td>24</td>
</tr>
<tr>
<td>762</td>
<td>30</td>
</tr>
<tr>
<td>Millimetres.</td>
<td>Inches.</td>
</tr>
<tr>
<td>67</td>
<td>34</td>
</tr>
<tr>
<td>95</td>
<td>34</td>
</tr>
<tr>
<td>130</td>
<td>54</td>
</tr>
<tr>
<td>165</td>
<td>64</td>
</tr>
</tbody>
</table>

and he proposed that these figures should be inserted in the draft rules.

M. BORIS (France) suggested that the rule could be simplified by expressing the freeboard as 23 per cent. of 25 per cent. of the depth.

THE CHAIRMAN thought that it would be better to have the accurate figures, and M. Boris agreed.

The figures were accordingly adopted.

RULE 4.—DAVITS.

The davits shall be of such strength that the boats can, if necessary, be lowered with their full complement of persons and equipment even when the ship has a considerable list.

M. FURUSETH (United States of America) asked when his proposition requiring a statement that rafts were carried on a ship should be inserted in the advertisements, tickets, &c., would be discussed.

THE CHAIRMAN suggested that it had better be brought forward at the end of Rule 7.

The above clause was seconded by General Uhler (United States of America).

M. BORIS (France) said that the words “a considerable list” left a complete discretion to the builder as to what that list should be. He considered that the list should be specified in the rule and suggested a static list of 20 degrees, which corresponds approximately to a dynamic list of 10 degrees.

M. HIPWOOD (Great Britain) said that there might be a difference of opinion regarding the actual angle of list and for that reason the British delegates preferred to leave the clause general, so that the actual angle could be determined by each administration.

M. BORIS (France) said he recognised the difficulty of fixing a figure, but suggested that it might be possible to fix the upper and lower limits, leaving the actual figure to the discretion of the different administrations.

M. RIESS (Germany) said that the German Delegation, after careful consideration, thought that the clause should be left general for the present. After the administrations have had more experience it might be possible to fix it accurately.

GENERAL UhLER (United States of America) suggested that an angle of 15 degrees would be a moderate list, and that it would be easy to provide for such a list. The United States Committee were of opinion that this matter was of great importance, and he proposed that the clause should be amended so as to require that the davits would be sufficiently strong for a list of 15 degrees.
M. SCHRECKENTHAL (Austria) seconded the proposal.

M. HIPWOOD (Great Britain) said that the Board of Trade tested davits to an angle of 15 degrees, and that, therefore, the British Delegation would not object to the insertion of that figure.

M. RIESS (Germany) said that he also was prepared to accept the angle of 15 degrees, as in Germany davits were constructed to stand a test up to an angle of 20 degrees.

M. WILMINK (The Netherlands) said that he had no objection to the angle of 15 degrees, but he preferred to leave the clause general, for, if the angle were fixed at 15 degrees, that angle would be regarded as a maximum.

THE CHAIRMAN explained that the rule was only intended as a basis for a formula for ascertaining the strength of davits. There would, of course, be in addition a margin of safety. Every shipowner would be at liberty to make the angle larger if he desired.

The amendment was agreed to.

THE CHAIRMAN then read the clause as amended:—

"The davits shall be of such strength that the boats can, if necessary, be lowered with their full complement of persons and equipments even when the ship has a steady list of 15 degrees."

M. SCHRECKENTHAL (Austria) suggested that the words "if necessary" should be omitted, as the rule only deals with davits from the constructional point of view.

SIR NORMAN HILL (Great Britain) explained that the British Delegation had inserted these words because they did not wish to be parties to a document which could be interpreted as suggesting that the boats should always be lowered from the davits with all the persons on board.

After some discussion it was agreed to omit the words "if necessary," and the clause so amended was adopted.

THE CHAIRMAN read the next clause in the draft rules, amended in accordance with the previous decision:—

"The davits must be fitted with a gear of sufficient power to turn out the boat against such a list."

M. BORIS (France) said that the French Delegation could not accept this wording. The angle against which the boats must be able to be put out depends upon the reach of the davits and upon the shape and height of the ship. For the purposes of this rule the angle of list should vary in different ships, and he thought that the davits should be able to put a boat out against the maximum list in which it is possible to lower the boats.

CAPTAIN BULLARD (United States of America) said that 15 degrees was a very small list for turning out the boats.

CAPTAIN CHARLES (Great Britain) said that in a ship of about 40,000 tons it would be quite impossible with ordinary davits to lower the boat clear of the bilge on the weather side if there was a list of 15 degrees, and he agreed with M. Boris's proposal that the davits should be required to turn out the boat against the maximum list under which the lowering of the boats is possible on the particular vessel.

M. HIPWOOD (Great Britain) said that the British Delegation were prepared to accept that amendment.

M. PEDERSEN (Norway) asked how this requirement would be applied in the case of existing ships with the old style of davits.

THE CHAIRMAN explained that the question of the transitional period must be dealt with later.

The amendment proposed by Captain Charles and the clause so amended were unanimously adopted.
When more than one boat is served by a set of davits, some arrangement must be made to prevent the falls fouling when they are recovered.

This clause was seconded by M. Wierdsma (Netherlands) and unanimously adopted.

Any appliance or appliances may be accepted in lieu of davits or of sets of davits if the administration is satisfied by actual trial that the appliance in question is as effective under all conditions as davits for placing the life-boats in the water. Each administration which accepts a new type of appliance in this manner will send particulars of the appliance and of the trials to the other administrations concerned.

This clause was seconded by M. Riess (Germany) and adopted.

THE CHAIRMAN then read the following clause, which contained an amendment on the original printed clause. He explained that the words “for transporting the boats across the deck” had been omitted from the print by mistake.

**RULE 5.—STOWAGE OF BOATS.**

All boats which are not attached to davits (or other approved appliances) shall be so stored that they can be placed in the water in the shortest possible time, and arrangements for transporting the boats across the deck shall be made so that, under the most unfavourable conditions in the matter of list and trim from the point of view of working the boats, as large a number of persons as possible may be embarked in the boats.

M. RIESS (Germany) suggested that, as it stood, the rule made no provision as to the boats attached to davits. He proposed that the words “which are not attached to davits (or other approved appliances)” should be deleted in the first line and the words “the most” in the third line.

M. BOLIS (France) said that the French Delegation had carefully considered the proposals for stowing several pontoon life-boats under the same set of davits. The majority of the countries have rules to the effect that the boats attached to davits must be able to be put into the water within a certain specified time. In France it is two minutes; in other countries five minutes. He was of opinion that a rule requiring all boats to be put into the water within a certain time should be included, and that, in view of the difficulty of recovering the blocks, the owner should be required to fit non-toppling blocks, or to carry spare tackles. He had prepared a motion to that effect, which was as follows:—

En ce qui concerne les embarcations placées directement sous une paire de bossoirs ou d'autres engins équivalents approuvés, l'embarcation supérieure doit pouvoir être mise à l'eau en cinq minutes, et les embarcations inférieures doivent pouvoir suivre la première à un intervalle maximum de dix minutes entre deux mises à l'eau consécutives.

In the case of boats placed directly under a set of davits or other equivalent approved appliance, the upper boat should be capable of being put into the water within five minutes, and the lower boats should follow the first at a maximum interval of ten minutes between two consecutive launchings.

He added that, although the proposal of the German delegates was not quite so precise as his clause, he was prepared to withdraw his motion in favour of the German amendment in order to save time.

The amendment was accordingly adopted.

M. POLIS (Germany) said that in many ships it would be dangerous to require elaborate arrangements for transferring the boats across the deck as the appliances would increase the top weight. Owing to the presence of deck houses, &c., it would be necessary for these appliances to be built above the level of the boat deck. He moved the deletion of the words “for transporting the boats across the deck.”

M. WILMINK (Netherlands) asked whether these words were intended to apply only to the boats not attached to davits.
SIR NORMAN HILL (Great Britain) said that the British Delegation attached great importance to the possibility of transferring all the boats not attached to davits. This could be made clear by inserting the words "which are not attached to davits."

M. POLIS (Germany) said that it was not possible to transfer boats across the deck as suggested.

THE CHAIRMAN proposed that the clause as printed in the original draft should be considered first, leaving the question of transference across the deck to be dealt with in a separate clause.

The clause was then unanimously adopted in the following terms:—

All boats shall be so stored that they can be placed in the water in the shortest possible time, and the arrangements shall be such that, under unfavourable conditions in the matter of list and trim from the point of view of working the boats, as large a number of persons as possible may be embarked in the boats.

The davits or appliances for lowering boats shall be fitted on one or more of the decks in such position that the boats can be efficiently lowered from them. Davits shall not be fitted in the bows of a ship, but they may be fitted in any other position in the ship provided the boats are not brought into dangerous proximity to the propeller on being launched into the water.

M. RIESS (Germany) seconded this clause.

M. GROLOUS (France) intervened at this point with a suggestion that a special clause should be inserted before the clause which had just been read in order to deal with the arrangements necessary for lowering the boats on either side of the ship. When there is a heavy list it is not possible to lower the boats on the weather side, and it is therefore essential that arrangements should be made for dealing with the boats in such cases. An efficient gear for doing this must be provided; davits may be useless for the purpose, and, as the number of davits has been fixed by the rules, it might not be possible to find room for the appliances necessary for dealing with the boats in the manner suggested. He therefore proposed the following clause:—

"Il est recommandé de disposer sur le pont le plus grand nombre possible d'embarcations pouvant être mises à l'eau indifféremment d'un bord ou de l'autre (embarcations axiales) à l'aide d'engins spéciaux ou de maîtres de charges."

"Dans le cas où la mise à l'eau de ces embarcations serait gênée par la présence de portemanteaux voisins, ceux-ci pourraient être supprimés par dérogation officielle à la section (a) de la Règle 3 (4).

"Il est bien entendu que le nombre total de places à bord des embarcations ne serait pas diminué par ce fait et que les embarcations déplacées devraient avoir des moyens efficaces de mises à l'eau. L'appréciation des cas où cette dérogation devrait être accordée sera laissée à l'Administration de chaque pays."

"It is recommended that as large a number of boats as possible shall be so placed on the deck that they can be lowered on either side of the ship (centre boats) by means of special appliances or cargo derricks.

"In cases where the launching of the boats would be hindered by the presence of neighbouring davits they may be dispensed with in spite of the provisions of section (a) of Rule 3, it being understood that the total number of places in the boats shall not thereby be diminished and that there must be efficient appliances for putting the boats so displaced into the water. The determination of the cases in which this reduction should be allowed should be left to the Administration of each country."

M. WIERDSMA (Netherlands) seconded M. Groulous' proposal because he thought it would be necessary sometimes to dispense with one or more sets of davits on each side so as to allow of the launching of the inboard boats.

SIR NORMAN HILL (Great Britain) said that it would be most undesirable to discuss this proposal at this stage. The rules, from beginning to end, were framed on a basis of davits. The British Delegation had in mind the view which M. Grosous had now put forward when they inserted in the 4th paragraph of Rule 4 "or sets of davits" after the words "in lieu of davits." By authorising the administration to accept appliances in lieu of davits the Committee had recognised the principle for which the French Delegation contend. If the Committee adopted M. Groulous' proposal it would be necessary to redraft the rules entirely.

[1244—78]
M. GROLOUS (France) said that in view of Sir Norman Hill’s explanation that the last paragraphs of Rule 4 would cover the case to which his motion referred, he withdrew his motion, but he asked that the motion should be inserted in the Report of the meeting with a statement that it would be covered by Rule 4.

THE CHAIRMAN agreed that this should be done.

M. GROLOUS (France) added that he would bring up the question in a modified form again when the question of rafts was under discussion, as no provision was made in the draft rules for the launching of rafts.

M. WILMINK (Netherlands) asked whether the rule as to the position of davits would be prejudicial to vessels having four screws. Did it require that there should be no davits abaft the forward screw?

M. ARCHER (Great Britain) said that if a ship has four propellers the forward propellers would probably be very low in the water, and he thought therefore that the rule would not affect this case.

With this assurance, M. WILMINK supported the clause, which was adopted.

At the suggestion of M. SCHRECKENTHAL (Austria) it was decided to make Rules 4 and 5 into one rule.

Where boats are stowed on more than one deck the arrangements for lowering them shall be such as to prevent the boats from a lower deck being fouled by those from a deck above.

GENERAL UHLER (United States of America) said that he thought the wording might be improved by requiring that "the spacing of the boats shall be such as to prevent the boats from a lower deck being fouled by those from a deck above."

It was explained that there might be appliances which would put the upper boat clear of the boat below.

GENERAL UHLER (United States of America) then seconded the clause, which was unanimously adopted.

M. HIPWOOD (Great Britain) proposed the following clause:

In the case of boats not attached to davits, arrangements shall be made for transferring these boats across the deck so that it shall be possible to launch as many of the boats as practicable on either side of the ship.

M. RIESS (Germany) seconded the clause, and it was decided that the clause should be inserted in the report of the meeting as having been adopted, it being open to any delegation to reopen the question when the report of the meeting was submitted for confirmation.

M. FURUSETH (United States of America) asked what the British Boats and Davits Committee had in mind when they said that a large number of the boats could be put into the water on either side. The German Delegation proposed to use derricks for this purpose. As regards M. Polis’ contention that elaborate appliances would make the vessel too heavy, that could be overcome in the design of the ship.

M. HIPWOOD (Great Britain), in answer to M. Furuseth’s question, referred to passages on pages 17 and 27 of the Report of the British Boats and Davits Committee, which he read. The further discussion of this point was postponed, as stated above.

**Rule 6.—Equipment of Boats.**

Every boat shall be equipped as follows:

(a.) With a single banked complement of oars and two spare oars.

M. RIESS (Germany) seconded this clause.

M. WIERDSMA (Netherlands) said that in the Dutch law paddles were admitted in lieu of oars. Paddles were very valuable, especially where it is not necessary for the boats to move far. He proposed that paddles should be required either as alternates or in addition to oars.
M. RASMUSSEN (Denmark) seconded the proposal.

The question was discussed at some length and it was decided that the requirement as to the oars should be passed without reference to the question of paddles. If paddles are to be required, they must be in addition to oars and not instead of them.
The clause was accordingly adopted.

(b.) With two plugs for each plug-hole attached with lanyards or chains and one set and a half of those pins or crutches attached to the boat by sound lanyards.

CAPTAIN CHARLES (Great Britain) and GENERAL UHLER (United States) drew attention to the fact that there were automatic drains which did not require plugs.

It was decided that in these circumstances the clause would require redrafting, and the Committee proceeded to consider the next clause.

(c.) With a sea anchor, a bailer, a galvanised iron bucket, a rudder, a tiller, or yoke and yoke lines, a painter of sufficient length, and a boat hook. The rudder, bailer, and the bucket shall be attached to the boat by sufficiently long lanyards, and kept ready for use. In a boat where there may be a difficulty in fitting a rudder, a steering oar may be provided instead.

M. EVANG (Norway) asked whether the length of line attached to the sea anchor should not be specified. He also added that the Norwegian regulations required two painters.

M. FURUSETH (United States of America) said that a sea anchor, if it is also made to spread oil, is the very best appliance for keeping a boat head to sea. A boat which has no headway cannot be steered by a rudder, whereas with a sea anchor and a steering oar a boat could always be kept head to sea. In his opinion, the ordinary canvas cone type of sea anchor was not efficient, and he considered that the sea anchor should be further described. He also proposed that the last sentence of the clause should be deleted, and that there should be inserted instead the words “all boats shall be adapted for the use of a steering oar.”

CAPTAIN YOUNG (Great Britain) seconded this amendment, which was adopted.

At the suggestion of the Chairman the question of the description of the sea anchor was postponed in order to allow M. Furuseth to submit a definite proposal on the subject.

(d.) With a vessel capable of holding 1 quart for each person that the boat is deemed fit to carry. This vessel shall be kept filled with fresh water and provided with a dipper with lanyard.

This clause was seconded by M. FURUSETH (United States of America), and adopted unanimously.

(e.) With two hatchets, one to be kept in each end of the boat, and to be attached to the boat by means of a lanyard.

M. WILMINK (Netherlands) seconded this clause, which was unanimously adopted.

(f.) With a line securely hacketed outside of the boat.

(g.) With an efficient lantern trimmed, with oil in its receiver sufficient to burn eight hours; or with some other lantern or light at least as effective, approved by the Board of Trade.

These two clauses were both seconded by M. Riess (Germany) and adopted unanimously.

The Committee adjourned until Wednesday, the 3rd December.

J. H. BILES, Chairman.

F. P. ROBINSON, J. Secretaries.

A. BULTINCK.
THE CHAIRMAN proposed, as an alternative to the clause (h) in the draft, the following clause:—

At least one-half the life-boats, or four of them, whichever number is the greater, shall be fitted with a mast or masts, and with at least one good sail and proper gear for each; but this does not apply to an approved motor-boat.

M. WILMINK (Netherlands) asked whether a motor-boat would be accepted in lieu of a boat with sails.

M. RIESS (Germany) thought that if there were only four boats all of them would be required to have a sail. If, however, it was desired to carry a motor-boat as one of the four boats required, the rule would not prevent it.

M. FURUSETH (United States of America) said that, in his opinion, unless a number of motor-boats are carried, all boats ought to have sails, in such trades as that between Colombo and Australia or on the coast of Africa, when a vessel may be 100 miles from land and when other ships may not pass for some days. It would be very hard on the people in the boats without sails if their fellows sailed off to safety and left them behind.

THE CHAIRMAN then suggested that the Committee should consider the adoption of the original clause, which required all boats to be equipped with a sail.

GENERAL UHLER (United States of America) said that he was not prepared to accept that. In the United States they had tried to eliminate superfluous gear in life-boats. Besides taking up space, sails will be a source of danger unless there are competent men to sail the boats. He thought that there should only be sails in a few boats for messenger service, and suggested two as a suitable number.

CAPTAIN YOUNG (Great Britain) said that the Board of Trade had wished passenger vessels in general to carry sails in their boats. They realised, however, that when a very large number of boats were carried, it was neither necessary nor desirable that they should all be fitted with sails. They suggested, therefore, that on routes, such as the North Atlantic, half the boats attached to davits should have sails.

M. BORIS (France) said that under the existing French regulations all the boats had to have sails. The French Delegation were, however, prepared to accept a proposal that the number of boats with sails might be reduced in trades such as the North Atlantic.

M. SCHRECKENTHAL (Austria) said that the Austrian law required all boats to have sails.

M. WILMINK (Netherlands) said that he thought similar concessions should be made to vessels plying in the South Atlantic.

M. LE JEUNE (Belgium) said that if different standards were instituted for different trades, a difficulty might arise with the certificates which were to be valid for a fixed period.

M. FURUSETH (United States of America) thought that on long voyages outside the North Atlantic there should be sails in all the boats. On these ships there will not be so many people as on the Atlantic ships.

M. WIERDSMA (Netherlands) supported M. Furuseth.

THE CHAIRMAN intervened at this point and proposed that clause (h) as printed, should be adopted, leaving the question of a partial exemption in the North Atlantic trade to be considered separately. He accordingly proposed:—

(h.) With a mast or masts, and with at least one good sail and proper gear for each; but this does not apply to an approved motor-boat.

M. RIESS (Germany) seconded the clause, which was unanimously adopted.
THE CHAIRMAN proposed:—

In the case of vessels engaged in the North Atlantic passenger trade, which are provided with a wireless telegraphy installation, only a limited number of the boats need be equipped with masts, sails, and compasses.

He added that the British Delegation preferred to leave each Administration to fix the actual number of boats to be fitted with sails.

GENERAL UHLER (United States of America) seconded the clause.

M. RIESS (Germany) pointed out that the German Delegation had proposed that masts and sails should be dispensed with in all the boats in this trade. They were prepared to accept the proposed clause, however.

The clause was unanimously adopted.

(i.) With an efficient compass.

This clause was seconded by M. Riess (Germany) and adopted unanimously.

(j.) With an air-tight case containing 2 lbs. of biscuits for each person for whom the boat is approved.

GENERAL UHLER (United States of America) seconded the clause and it was unanimously adopted.

(k.) With 1 gallon of vegetable or animal oil, and a vessel of approved pattern for distributing it in rough weather.

M. FURUSETH (United States of America) proposed the deletion of the words "and a vessel of approved pattern for distributing it in rough water" and the insertion in clause (e), after the word "sea anchor," the words "so constructed that it will emit oil." He explained that oil is of little use unless is is distributed at a distance from the boat.

M. HIPWOOD (Great Britain) said that the rules as drafted provide that each boat must be supplied with oil and a vessel for distributing it. M. Furuseth suggested that this vessel must in all cases be attached to the sea anchor. This was a matter in which the Committee should be guided by the opinion of seamen, but he thought that M. Furuseth's point would be met if the words "This vessel should be so arranged that it can be attached to the sea anchor" were added at the end of the clause under discussion.

M. RIESS (Germany) said that he had made a number of experiments with oil on the water. It was not desirable to distribute it too far from a small boat.

M. FURUSETH (United States of America) said that he was satisfied with the amendment proposed, and the clause so amended was adopted.

(b.) With one dozen self-igniting red lights in a watertight tin, and a box of suitable matches in a watertight tin.

M. RIESS (Germany) seconded the clause, and it was adopted unanimously.

In the case of pontoon life-boats there should be no plug hole, and a bailer need not be provided. Every pontoon life-boat shall, however, be equipped with at least two efficient bilge pumps.

At the suggestion of M. EVANG (Norway), the words "and a bailer need not be provided" were deleted.

GENERAL UHLER (United States of America) seconded the clause, and it was adopted.

THE CHAIRMAN proposed the following clause in place of clause (b):—

(b.) With one set and a half of thole pins or crutches attached to the boat by sound lanyards; and with two plugs, attached with lanyards or chains, for each plug hole. Plugs are not required where a proper automatic valve is fitted.

M. RIESS (Germany) seconded the clause, and it was unanimously adopted.
RULE 7.—Rafts.

An approved pontoon raft should satisfy the following conditions:—

(a.) It should be reversible, and fitted with bulwarks of wood, canvas, or other suitable material on both sides. These bulwarks may be collapsible.

M. HIPWOOD (Great Britain), in reply to M. Riess (Germany), said that arrangements were being made for the Committee to inspect the raft on which the rules were based.

THE CHAIRMAN referred to the report of the British Boats and Davits Committee, and especially to the diagrams at the end of the report, which showed that the stability of the proposed raft is on the same plane as that of the pontoon life-boats.

M. RIESS (Germany) enquired where the equipment would be stowed, so as to be accessible from either side.

CAPTAIN CHARLES (Great Britain) said that in the existing patterns the equipment was stowed in a tube, between the buoyant cylinders, to which access was given at the ends of the raft. It was proposed, however, to fit a locker in the raft with doors in both decks.

The clause was seconded by M. Wierdema (Netherlands), and adopted unanimously.

(b.) It should be of such size, strength, and weight that it can be handled without mechanical appliances, and, if necessary, thrown from the vessel’s decks.

M. RIESS (Germany) seconded the clause, adding that he regarded it as of supreme importance that the rafts should be capable of being launched by a dozen men, or possibly half-a-dozen.

M. LE JEUNE (Belgium) said that he had no objection to clause (b), but this clause dealt only with the launching of the raft in a great emergency. There was no provision in the rules for appliances to launch the rafts easily and with a much smaller number of men than would be required to launch them by hand. Further, launching in the manner suggested might easily damage the cylinders and result in the loss of the equipment. He therefore proposed as an additional clause:—

“It should be stowed in close proximity to the boats’ davits, be provided with suitable tackles, or other approved gear, and be free of all fixed obstructions such as ventilators, &c.”

SIR NORMAN HILL (Great Britain) said that M. Le Jeune’s point should not be overlooked, and he thought that a rule such as he proposed might be inserted in the rule dealing with stowage of boats. The present clause (b) is only intended to secure that the raft shall be of sufficient strength.

M. GROLOUS (France) supported M. Le Jeune’s proposal, and added that if it is found that the davits prescribed by the rules obstruct the launching of the rafts the Administration should be empowered to dispense with one pair of davits on each side.

It was agreed that the principle of M. le Jeune’s motion should be adopted and incorporated in the rules in a suitable place.

M. KROGH (Denmark) asked whether it would not be expedient to insert some rough limit for the weight of the raft.

M. HIPWOOD (Great Britain) said that this appeared to be a matter which could best be left to the Administrations to regulate.

(c.) It should have not less than 3 cubic feet of buoyancy for each person for which it is certified.

M. EVANG (Norway) proposed the deletion of the word “buoyancy” and the substitution of the words “aircase or equivalent buoyancy.”

With this amendment the clause was adopted.
(d.) It should have a deck area of not less than 4 square feet per person, and the platform should not be less than 6 inches above the water-level when the raft is loaded.

M. EVANG (Norway) seconded the clause, and it was unanimously adopted.

(e.) To secure the necessary stability, the aircases, or equivalent buoyancy, should be placed as near as possible to the sides of the raft.

At the suggestion of M. SCHRECKENTHAL (Austria) the words “to secure the necessary stability” were deleted.

The clause, so amended, was seconded by M. Furuseth (United States of America) and adopted unanimously.

M. RIESS (Germany) proposed that the following clause should be added: “It should have a line securely becketed round the outside of the raft.”

M. SCHRECKENTHAL (Austria) seconded the proposal, the principle of which was adopted, but it was decided that the clause should be inserted under the equipment.

The equipment of approved pontoon rafts should consist of:—

1. Four oars.
2. Five rowlocks.
3. A sea anchor.
4. A painter.
5. A receptacle for provisions.
6. A receptacle for water.
7. Six red lights.

M. TRÉFEU (France) said that in his opinion oil should form part of the equipment of rafts as of boats. His conception was that boats and rafts would keep in groups or in file, and it is essential that the boat or raft which is most favourably placed should distribute the oil. He asked why four oars and five rowlocks were required, and also suggested that it was not desirable to require a Holmes life-buoy light, as that was a patent appliance.

THE CHAIRMAN said that M. Tréfen’s suggestions were of great value, and he proposed that a provision as to oil should be included. He also proposed that the word “self-igniting” should be substituted for “Holmes.” As regards the oars and rowlocks, the idea was that there should be two oars for rowing, one for steering, and one spare. There are two spare rowlocks. He also suggested that the clause dealing with the equipment should be redrafted so as to correspond in form with the clause dealing with the equipment of boats.

It was agreed finally that the equipment specified should be adopted with the addition of a life-line and an oil distributor.

M. EVANG (Norway) suggested that there should be a strap on the deck for each person to hold.

THE CHAIRMAN thought that this was a small detail which might be left to the Administration, and M. Evang did not press his proposal.

In ships which carry rafts, a number of rope-ladders should be kept readily available for embarking persons on the rafts.

M. RIESS (Germany) seconded the clause, and it was unanimously adopted.

M. RIESS then proposed the addition of a clause similar to that at the end of Rule 1, empowering the Administration to accept equivalent rafts.

M. HIPWOOD (Great Britain) seconded the proposal, and it was adopted.

M. SCHRECKENTHAL (Austria) proposed to insert at the end of Rule 3 (e) the words “or by other approved equivalent appliances.” He explained that he had raised the point at a previous meeting, with a view to the acceptance of floating deck houses, &c.
Major Kersey (Canada) said he thought that there would be great confusion if each Administration were free to accept any appliance which it regarded as efficient.

Sir Norman Hill (Great Britain) said that the rules already give wide powers to the Administrations to accept equivalent boats, rafts, and launching appliances. The Committee had framed a system of life-saving appliances based upon boats and rafts. He did not think it possible to give each Administration power to accept a new system because it regarded it as equivalent to the standard set up by the Conference. If a really important discovery, which revolutionises the whole question, is made, it could be discussed at another Conference.

M. Schreckenthal (Austria) pointed out that his proposal only applied to the last 25 per cent., for which rafts were allowed.

After some further discussion M. Schreckenthal withdrew his motion.

M. Furuseth (United States of America) proposed for consideration the following motion:—

The percentage of persons who must go on rafts in lieu of boats shall be part of all advertisements for passengers. It should be printed plainly on all tickets and shall be noted on the vessel’s certificate.

M. Hipwood (Great Britain) intervened and said that the Committee which was drafting the form of certificate for the convention had included a statement of the number of boats, rafts, and other life-saving appliances. This certificate would be exhibited on board in a conspicuous place.

The Chairman asked whether any delegation would support M. Furuseth’s motion.

The motion was not seconded, but M. Furuseth asked leave to speak a few words before it was ruled out of order.

Permission having been given, M. Furuseth said that he had proposed the motion in good faith. He did not believe in rafts, and if he were to go across the Atlantic he would wish to know whether the vessel had rafts or not. If the passenger agrees with this Committee, he will travel on a vessel which has rafts, but he has the right to choose for himself. The Committee believe that a raft is an equivalent to a boat. Why, then, object to the proposal here made, which amounts to nothing beyond wholesome publicity?

Sir Norman Hill (Great Britain) claimed that M. Furuseth’s statements should not be allowed to go unchallenged, and the discussion was accordingly adjourned.

The Committee adjourned until Friday, the 5th December.

F. P. Robinson, J. H. Biles, Chairman.
A. Bultinck, Secretaries.
Tenth Meeting.—December 5, 1913.

The discussion of M. Furuseth's (United States of America) resolution was resumed, and Sir Norman Hill said that, as the arguments put forward by M. Furuseth appeared in the report of the previous meeting, he thought that the majority of the Committee were entitled to place on record the reasons why the resolution found no seconder. As he understood it, these reasons were as follows: M. Furuseth's suggestion that the number of rafts should appear on each vessel's passenger certificate had already been provided for by the Certificates' Committee. The remainder of the resolution aimed at discouraging the use of rafts, and inviting the travelling public to discriminate against the vessels that carry rafts in favour of the vessels that do not carry rafts. The Committee had affirmed its belief that many occasions might arise in which a pontoon raft of the type described would be found more valuable than a life-boat. Personally, he was firmly convinced that such occasions do arise, and he had studied carefully the proceedings before all the Courts of Inquiry into casualties to British ships in which lives of passengers had been lost during the last twenty years. At a previous meeting, he had given particulars of the casualties which had occurred in the North Atlantic during that period, and he would like to point out that, in the inquiry which is now proceeding into the loss of the "Voltorno," the evidence of the Captain of the vessel showed that the night preceding the rescue was spent in an attempt to construct rafts.

The Captain's evidence was as follows:—

"I said to the Engineer, 'I do not think we will last until the morning. The best thing we can do is to make small rafts of anything we can get hold of, in case we have to put the passengers over the stern, so that they will have something to float with.' So we did that. One of us stopped with the passengers, while the other went away and got cars out of the boats and the strong backs of the boats, and I noticed that the two sailors who were working the hoses all day were also making rafts with planks they found in the aft-house."

It is because the Committee held these views that they have authorised the use of rafts, and in these circumstances it would be wrong for them to sanction any action calculated to deter the travelling public from sailing in vessels which are equipped with the most effective means of saving life.

M. Furuseth's motion not having been seconded, the Committee proceeded to consider Rule 8.

**Rule 8.—Life-buoys and Life-jackets.**

*If the ship is under 400 feet in length, at least twelve approved life-buoys shall be carried; if of 400 feet or over, but under 600 feet, at least eighteen approved life-buoys shall be carried; if of 600 feet or over, but under 800 feet, at least twenty-four approved life-buoys shall be carried; and if of 800 feet or over, at least thirty approved life-buoys shall be carried.*

M. TRÉFEU (France) seconded this clause, and it was adopted unanimously.

M. TRÉFEU (France) then proposed the insertion of the following clause:—

"Il doit y avoir dans chaque cabine autant de gilets de sauvetage qu'il y est prévu de passagers, et dans les entreponts, à proximité des couchettes correspondantes, autant de gilets qu'il y est prévu de passagers d'entrepont.

"En outre, il sera placé sur le pont, dans des coffres non fermés à clé, un nombre de gilets de sauvetage égal à un dixième du nombre total des passagers.

[1244—78]

"There must be in each cabin a number of life-jackets corresponding to the number of passengers accommodated there, and in the 'tween decks, in close proximity to the corresponding bunks, as many life-jackets as there are passengers accommodated there.

"Further, there shall be placed on the deck, in boxes without locks, a number of life-jackets equal to one-tenth of the total number of passengers."
“Finally, for the personnel of the bord, the life-jackets shall be placed in the crew's quarters, except that a number corresponding to the number of men that work in the engine-room, stokeholds, &c., shall be placed, as the case may be, at the top of the ladder-ways or escapes from the stokeholes, engine-rooms, &c., and a corresponding number (one-third approximately) for the members of the general service shall be kept in the places in which these men ordinarily work.”

He said that he regarded it as very desirable that the Committee should indicate in the rules where the life-jackets should be stowed. It is very desirable to have jackets for the men of the engine-room and stokehold departments at the places at which they would come out on deck, for, in an emergency, they would probably not have time to go to the crew's quarters to get their jackets. The proposal also provided for a percentage of life-jackets, in addition to one for each passenger in the cabins, to be carried on deck as a reserve, in order that there might be less confusion in the event of some of the jackets being lost or mislaid. He had in his motion suggested a proportion of 10 per cent., which was the figure in the French Regulations. For the purposes of the Conference, however, he would be quite willing to leave the figure to be determined by each Administration.

M. RASMUSSEN (Denmark) seconded the proposal.

SIR NORMAN HILL (Great Britain) said that he thought that the principle embodied in the British Rules would cover M. Tréfel's point, and, in view of the difference between different ships, it was in some ways more satisfactory. He agreed that the Committee should adopt a clause requiring that the life-jackets should be stowed so as to be easily accessible, and that their position should be well known and clearly indicated.

As regards the proposal that there should be a reserve of life-jackets, he saw some difficulty in deciding what proportion was reasonable, and he pointed out that, as a matter of fact, on most voyages there would be a surplus, because it is very rare for a ship to be completely full.

CAPTAIN YOUNG (Great Britain) questioned the desirability of keeping life-jackets stowed in the cabins of the third class passengers. They very often cut off the tapes for various purposes, and he considered it better to keep the life-jackets stowed in groups in special places.

THE CHAIRMAN intervened at this point, and suggested that M. Tréfel's motion raised two distinct points: (1) the question of stowage, and (2) the additional percentage. He thought that it would facilitate the procedure to take the next clause of the draft before deciding upon M. Tréfel's proposition.

One approved life-jacket or other approved article of equal buoyancy suitable to be worn on the body shall be carried for each person aboard. A sufficient proportion of the life-jackets shall be of a size suitable for children.

M. RIESS (Germany) seconded the clause, and then moved, as an amendment, the addition of the words, "The life-jackets shall be readily accessible at all times."

M. TRÉFEU (France) said that he was prepared to accept M. Riess' motion. The French Delegation regarded it as essential that the jackets for the crew should be stowed as suggested in his motion, and he would like the French proposal to be printed in the report of the meeting, for the information of the other nations. As he understood it, the English and German Delegations proposed to leave the approval of the manner of stowage to the individual surveyor.

THE CHAIRMAN said that he had agreed with M. Riess to the following wording, which should be inserted after the words "each person on board":

All life-buys and life-jackets shall be so placed as to be readily accessible to all persons on board, and their position shall be plainly indicated so that it may be known to those for whom they are intended."
M. TREFEU said that he could agree to the clause, and it was unanimously adopted.

THE CHAIRMAN said that the Committee would now consider the question of an additional number of jackets, and he moved the adoption of the clause as already amended.

GENERAL UHLER (United States of America) said that the American Delegation were strongly opposed to the provision of special life-jackets for children. When the time comes for abandoning the ship the passengers, and even the crew, will be unlikely to discriminate between the jackets for adults and for children. If a child has a jacket which is intended for an adult, it will mean that an adult will have a jacket which is not sufficient to support him; whereas, if an adult’s jacket is put upon a child, it will at least keep the child afloat.

CAPTAIN YOUNG (Great Britain) said that if a full-size life-jacket is put upon a child, it will drown the child. There should, therefore, be life-jackets for children as well as life-jackets for adults. The Board of Trade have gone into the matter very carefully, and have found life-jackets which will keep children afloat. These jackets are marked in a conspicuous manner, and are stowed in compartments distinct from the compartments in which jackets for the adults are stowed.

M. WIERDSSMA (Netherlands) said that he wished to support Captain Young.

M. POLIS (Germany) agreed that it was necessary to have life-jackets for children, and he dissented from M. Trefeu’s proposal that the jackets should be stowed in big boxes. He thought that the children’s jackets should be stowed in the children’s berths.

M. WIERDSSMA (Netherlands) said that it would cover all the views expressed by the different delegations if life-jackets for children were made additional to the life-jackets provided for every person, whether child or adult, on board.

M. RIESS (Germany), in reply to General Uhler, said that it was essential that a life-jacket should fit. He stated that, although an adult’s jacket would probably drown a child, a child’s jacket would keep an adult’s head out of the water. He proposed that the last sentence of the clause should be made to read as follows:

"In addition, a sufficient number of life-jackets shall be provided of a size suitable for children."

M. HIPWOOD (Great Britain) said that the British Delegation were prepared to accept M. Riess’ amendment. As regards General Uhler’s fear of panic, no one can foresee what would happen in such circumstances. The Board of Trade are trying to prepare the minds of the passengers by exhibiting in all cabins pictures of the method of adjusting the life-jackets, and probably something of the same kind could be done to prepare their minds for two kinds of life-jackets.

M. SCHRECKENTHAL (Austria) suggested that several sizes of jackets for children of different years would be necessary.

M. HIPWOOD (Great Britain) said that jackets approved by the Board of Trade for children were tested with children of about seven years of age. Very young children would of course go with their parents.

After some further discussion, the clause as amended was adopted.

An approved life-jacket shall mean a jacket of approved material and construction, which, if it depends for its buoyancy on air, does not require to be inflated before use, and which is capable of floating in fresh water for 24 hours with 15 lbs. of iron suspended from it.

GENERAL UHLER (United States of America) proposed the deletion of the words "if it depends for its buoyancy on air."

M. RIESS (Germany) referred to the German proposal, which was "life-belts which require to be inflated before use are not allowed."

M. FURUSETH (United States of America) proposed to leave out the words "before use" in the German formula.
M. HIPWOOD (Great Britain) suggested that what the Committee intended to do was to prohibit all life-jackets which depended for their buoyancy on air. He therefore proposed that the clause should be amended as follows:

An approved life-jacket shall mean a jacket of approved material and construction, which is capable of floating in fresh water for 24 hours with 15 lbs. of iron suspended from it. No life-jacket the buoyancy of which depends upon air spaces shall be allowed.

The clause in this amended form was adopted.

An approved life-buoy shall mean either:

(1.) A life-buoy built of solid cork, capable of floating in fresh water for at least 24 hours with 32 lbs. of iron suspended from it; or

M. RIESS (Germany) seconded this clause, but pointed out that 32 lbs. of iron was actually 14.3 kilogrammes. The German rule required 14 kilogrammes, and the German Delegation did not wish to pledge themselves to reject buoys based on this rule. It was agreed to alter the words to “at least 30 lbs.”

With this alteration, the clause was adopted.

(2.) A strong life-buoy of any other approved pattern and material, which is capable of floating in fresh water for 24 hours with at least 30 lbs. of iron suspended from it, and which is not stuffed with rush, cork shavings or other shavings, or loose granulated cork or other loose material, and which, if it depends for its buoyancy on air, does not require inflation before use.

M. RASMUSSEN (Denmark) seconded the clause.

GENERAL UHLER (United States of America) proposed to delete the clause.

M. PEDERSEN (Norway) asked whether the United States intended to prohibit the use of Balza wood.

GENERAL UHLER said that he had overlooked this point, and he therefore proposed to replace the clause under discussion by the following clause:

“(2.) A solid life-buoy of any other approved material equal in buoyancy to cork, which is capable of floating in fresh water for 24 hours with at least 30 lbs. of iron suspended from it.”

He thought that the Committee were in a position to establish once and for all a standard type of life-buoy. The clause, as printed, invites the construction of strange devices. What is wanted is a solid ring, or horse-shoe, buoy.

CAPTAIN BULLARD (United States of America) said that in the United States navy life-buoys constructed of copper, filled with air, are used, and that these buoys are much more popular than ordinary cork buoys.

M. PEDERSEN (Norway) and CAPTAIN CHARLES (Great Britain) both supported Captain Bullard. Captain Charles added that copper buoys are used in the British navy, and on the best merchant ships. The Committee need not fear that they would be used extensively as copper is extremely expensive. Personally, he preferred horse-shoe buoys to ring buoys.

MAJOR KERSEY (Canada) said that he agreed with the clause as proposed by the British Delegation.

After some further discussion, General Uhler (United States of America) withdrew his amendment, and the clause as originally drafted was adopted.

All life-buoys should be fitted with beackets securely seized, and at least one on each side of the vessel shall be fitted with a life-line at least 15 fathoms in length. At least half the life-buoys required in any ship, and not fewer than six in any case, shall have placed near them, with means for attachment to them, efficient life-buoy lights, inextinguishable in water.

M. RIESS (Germany) seconded this clause.
M. WIERDSMA (Netherlands) said that he thought there was great danger in having a life-line fastened to the buoy, and he therefore proposed the deletion of the words—

"and at least one on each side of the vessel shall be fitted with a life-line at least 15 fathoms in length."

M. KROGH (Denmark) seconded the amendment.

M. FRAGIACOMO (Austria) said that he owed his life on one occasion to the existence of such a line.

CAPTAIN CHARLES (Great Britain) said that the buoy with the line was kept for use, when the ship was stopped, for pulling a man in. The buoys which are dropped from the quarter, when there is a man overboard, would not have a line.

M. Wierdsm's amendment was put to the vote, and there voted for the amendment: Denmark and the Netherlands, and against the amendment: Germany, United States of America, Austria-Hungary, Belgium, Canada, France, Italy, Norway, Russia, Sweden, and Great Britain.

The clause was then adopted.

M. SCHRECKENTHAL (Austria) proposed the addition of the clause:

"Life-buoys shall not be permanently secured, but shall always be ready to be cast loose."

M. FURUSET (United States of America) seconded this proposal, and it was unanimously adopted.

M. RIESS (Germany) said that the German Delegation regarded it as a matter of great importance that the buoys should be painted red, and he accordingly proposed that a clause to this effect should be added to the rules.

M. MCDONNELL (Canada) seconded the proposal.

M. SCHRECKENTHAL (Austria) proposed as an amendment that they should be coloured red and white in stripes.

M. NILSSON (Sweden) seconded the amendment.

M. RIESS (Germany) said that red was the best colour because, besides being easily seen, it denoted danger.

GENERAL UHLER (United States of America) said that the important point was which colour could be seen best at night; he understood that it was black.

M. TRÉFEU (France) said that, provided the buoys were painted a colour which was distinct from that of the sea, he was indifferent as to the colour selected, but he considered it essential that all life-buoys and life-jackets should be clearly marked with the name and number of the ship, and the name of the owner.

M. HIPWOOD (Great Britain) suggested that these points, which were of great interest, might be left to the administrations. M. Riess had seen that his proposal had the support of a number of countries, and the delegates had had the advantage of an exchange of views in the matter.

M. RIESS (Germany) agreed to withdraw his proposal.

M. TRÉFEU (France) said that he considered that a clause requiring the buoys to be marked in some intelligible manner should be inserted.

M. HIPWOOD (Great Britain) said that in practice all buoys were so marked. He did not, however, think that such a requirement should be inserted in these rules as it does not affect the efficiency of the lifebuoy as a life-saving appliance.

M. TRÉFEU agreed.

M. GROLOUS (France) said that arising out of Appendix 2, which had been circulated, it was important to consider in what class the "Lundin" boat should be placed. The boat has partially collapsible sides and is therefore not provided for.

M. HIPWOOD (Great Britain) said that it had already been explained that the "Lundin" boat was not specifically included in the rules. Experiments were still being carried out and he did not think the Committee were ready, at this moment, to express an opinion as to the class in which this type of boat should be placed.
M. GROLOUS (France) said he agreed with M. Hipwood, but he thought that an indication of the time for the clearing the deck in new boats should be given in the new rules. He suggested, for example, a clause to the effect that a time should be fixed by each administration.

M. TRÉFEU (France) pointed out that a number of "Lundin" boats are already installed on certain ships.

M. HIPWOOD (Great Britain) said that if the Committee accepted Appendix 2 it would provide a standard by which new types of boats can be tested.

M. TRÉFEU (France) again raised the question as to the carriage of supplementary life-jackets, and said that he did not think that the carriage of additional life-jackets for children entirely met his point.

SIR NORMAN HILL explained that if full-sized life-jackets were carried for all persons on board, adults as well as children, and sufficient jackets for the children in addition, it would generally mean a reserve of full-size jackets of about 15 per cent.

M. TRÉFEU (France) finally agreed not to press his proposal.

THE CHAIRMAN then referred to the boats of Class 1 (a), which had been reserved for further consideration, and models of the boat and of davits which had been designed for dealing with boats of this type were exhibited to the Committee.

THE CHAIRMAN explained that the davit proposed was very expensive, but as it handled very large boats the cost per person was not excessive.

The Committee then adjourned until Tuesday, the 9th December, at 10 o'clock.

F. P. ROBINSON, J. H. BILES, Chairman.
A. BULTING, Secretaries.
Eleventh Meeting.—December 9, 1913.

THE Minutes of the eighth and ninth meeting were adopted.

SIR NORMAN HILL (Great Britain), at the request of the Chairman, stated that Lord Mersey had summoned an informal Conference, consisting of the Chairmen of the Committees, to consider the question of the definition of the ships to which the Convention should apply.

The following clause was agreed upon provisionally at this informal Conference:

"Cette Convention ne s’appliquera, sauf dans les cas où elle en dispose autrement, qu’aux navires à vapeur de commerce de l’un quelconque des États contractants, portant plus de douze passagers et faisant route d’un port de l’un desdits États vers un port de cet État.

"Les navires à vapeur de l’un des États contractants accomplissant les voyages énumérés dans la cédule ci-jointe annexée à la Convention au moment de sa ratification comme étant des voyages que cet État ne considère pas comme des voyages océaniques, ne sont pas soumis aux règles de la Convention.

"Aucun voyage ne pourra être mentionné dans la cédule si au cours de leur route les navires qui l’effectuent passent à une distance de plus de [150] milles de la côte la plus proche.

"Tout État contractant aura le droit de réclamer d’un autre État contractant le bénéfice des avantages de la Convention pour une classe quelconque de ses navires accomplissant les voyages mentionnés dans la cédule. À cet effet, l’État qui réclamera ce bénéfice devra imposer auxdits navires les obligations prescrites par la Convention pour les voyages océaniques, autant que ces obligations ne seraient pas, eu égard à la nature du voyage, inutiles ou déraisonnables."

It was thought that, although this conference of Chairmen had no official status whatever, it would simplify the procedure of the Committees if they worked on the assumption that this clause would be adopted by the Conference.

The figure of 150 miles from shore will probably require alteration to 170 miles in order to include certain of the British home-trade voyages. It will be seen that the clause is intended to apply the provisions of the Convention to all ships trading to or from a signatory State. It was thought that it would not be possible to apply the Convention to voyages between countries which are neither of them parties to the Convention.

THE CHAIRMAN said that he did not propose that the Committee should discuss this clause, but he thought that they should assume it as a basis on which to prepare their own report.

The Committee then returned to the consideration of certain points in the draft Life-Saving Appliances Rules which had been reserved for further discussion.

THE CHAIRMAN said that the first question was whether the boat of Class 1 c should be inserted in the rules or not.

M. HIPWOOD (Great Britain) said that, although the British Delegation was strongly of opinion that future development would be along the lines of large boats of this type, he thought it would be better not to include it in the draft rules specifically. The boat has not reached the same stage of development as the Lusitania boat, which it had been decided not to include in the rules. The British Delegation wanted to lay before the Conference information in regard to this boat, and it will of course be open to any administration to adopt it in future.

M. RIESS (Germany) seconded the proposal to delete Class 1 c from the rules.

M. EVANG (Norway) said the clause in question does not cover the large decked boat designed by the British Boats and Davits Committee only, but it covers such boats as that invented by Captain Brude, of which drawings were laid before the Committee. This boat is accepted in Norway and in the United States, and, although
it is not used at present on passenger ships because it holds too few people, the Norwegian Government were prepared to accept it as part of the equipment of passenger steamships.

M. HIPWOOD (Great Britain) said that the omission of Class 1c would not prevent the Norwegian Government adopting Captain Brude’s boat.

M. EVANG (Norway) said that the formalities required by the rules, in the event of an administration accepting a new type of boat, were troublesome, and the Norwegian Government preferred, if possible, to avoid the necessity of notifying all the signatory States of the tests of the boat in question.

SIR NORMAN HILL (Great Britain) said that the fact that the clause in question was interpreted as covering two appliances so different as the large decked boat and Captain Brude’s boat showed how desirable it was that the clause should be omitted from the rules.

M. RIESS (Germany) said that the inclusion of a boat in the rules should be governed by the question of responsibility. The Committee were not sufficiently acquainted with these boats to include them in the rules.

M. PEDERSEN (Norway) asked whether the rule authorising the administration to accept alternative boats bore the interpretation that all the other countries must agree to its adoption before it is passed in his country.

SIR NORMAN HILL (Great Britain) said that it appeared that the rule authorised any administration to accept any kind of boat if it were satisfied that it was as efficient as one of the boats specified in the rules, and that other countries, while remaining free to accept this boat or not, as they pleased, upon their own ships, would be obliged to accept it on the ships of the country which had adopted it.

GENERAL UHLER (United States) agreed with Sir Norman Hill, and said that, as he understood it, the administration notified the other administrations for their information only.

SIR NORMAN HILL (Great Britain), continuing, said that if an administration proposed to adopt a boat or appliances which the other administrations considered manifestly unsuitable, they could in the last resort enforce their view by denouncing the Convention.

The Committee accepted this interpretation of the rule, and it was decided to include in the report of the meeting a full account of the discussion and of the decision arrived at.

THE CHAIRMAN then pointed out to M. Evang (Norway) that if Class 1c were retained in the rules it would be necessary to insert also rules governing the capacity and number of persons for which such boats could be allowed.

M. EVANG (Norway) said that in those circumstances he would agree to the deletion of Class 1c.

The Secretaries were accordingly instructed to delete from the draft all reference to boats of Class 1c.

It was, however, pointed out that the clause in Rule 3 allowing the minimum number of davits to be reduced, when a large number of Class 1c boats were carried, would require amendment, and the British Delegation undertook to prepare the revised draft.

M. RIESS (Germany) thought that the discussion of the pontoon boats should be postponed until the following meeting, when the Committee would have seen the German boat tested.

THE CHAIRMAN proposed and M. Riess (Germany) seconded the deletion of all reference to the boat of Class 3.

M. GROLOUS (France) said that, in his opinion, this type of boat should be left in. They were used for emergency boats, which should be light and easy to handle. Although they have no air cases, these boats are of great use in bad weather. He would be prepared to agree to the administrations having power to require a smaller amount of buoyancy.
M. HIPWOOD (Great Britain) said that this question had been brought before the Board of Trade by British shipowners when the new Board of Trade Life-Saving Appliances Rules were introduced. The Board of Trade had decided that no boat which is regarded as part of the life-saving equipment of the ship should have less than the standard buoyancy. Boats without buoyancy can always be carried in addition.

M. RIESS (Germany) said that there were three questions to consider in regard to these boats. If they are counted as part of the life-saving equipment, should they be fitted with buoyancy? If they are not carried as part of the life-saving equipment, should they be required in addition as emergency boats? Finally, if they are carried as emergency boats, would they be a source of danger when the ship was abandoned? His own opinion was that these boats might be carried in addition to the life-boats if the shipowner wished it.

M. Grolous (France) motion not being seconded, it was agreed to delete Clause 3.

THE CHAIRMAN read Appendix 2 dealing with the arrangements for freeing the decks of pontoon boats of water.

**REGULATIONS AS TO THE ARRANGEMENTS FOR FREEING THE DECKS OF PONTOON LIFE-BOATS OF WATER.**

The arrangements shall be such that in the case of a life-boat 28 feet in length a volume of water not less than 80 cubic feet shall be cleared from the deck in a time not exceeding the following:

<table>
<thead>
<tr>
<th>Class</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>60 seconds.</td>
</tr>
<tr>
<td>2b</td>
<td>50</td>
</tr>
<tr>
<td>2c</td>
<td>20</td>
</tr>
</tbody>
</table>

In testing the arrangements for freeing the deck from water, the life-boat shall be loaded with iron weights corresponding to all the persons the boat is deemed fit to carry and the weight of the equipment. For boats having a length greater or less than 28 feet the volume of water to be cleared in the time stated shall be directly proportional to the length of the boat.

M. ARCHER (Great Britain) said that adequate arrangements for freeing the deck of water were of supreme importance in boats with a flush deck. He did not propose to go into the matter at length, as time was short, but he would be prepared to show the stability curves and calculations to any member of the Committee who desired it.

The Appendix was finally adopted in the following form:

**REGULATIONS AS TO THE ARRANGEMENTS FOR FREEING THE DECKS OF PONTOON LIFE-BOATS OF WATER.**

The arrangements shall be such that in the case of a life-boat 28 feet in length a weight of water not less than 2 tons shall be cleared from the boat in a time not exceeding the following:

<table>
<thead>
<tr>
<th>Class</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>60 seconds.</td>
</tr>
<tr>
<td>2b</td>
<td>60</td>
</tr>
<tr>
<td>2c</td>
<td>20</td>
</tr>
</tbody>
</table>

In testing the arrangements for freeing the boat from water, the life-boat shall be loaded with iron weights corresponding to all the persons the boat is deemed fit to carry and the weight of the equipment. For boats having a length greater or less than 28 feet the weight of water to be cleared in the time stated shall be directly proportional to the length of the boat.

THE CHAIRMAN suggested that Appendix 3, which gives the British practice in regard to the measurement of boats, might be adopted as a standard, and that on page 4 of the draft, after the words "Appendix 3," there should be inserted the words "or by some other rule giving a similar degree of accuracy."

This was unanimously agreed to.
THE CHAIRMAN then suggested that the table of boat capacities given in Appendix I should be verified by a small Committee consisting of one member of the English, German, and French Delegations respectively. The principle on which the table was based had already been adopted by the Committee, and it only remained to check the figures.

This was unanimously agreed to.

M. PEDERSEN (Norway) then referred to the Table of Davits in Rule 3 A. The Norwegian Delegation wished to include the North Sea trade in the Convention, and, as he understood the statement of Sir Norman Hill in regard to the definition of the ships to which the Convention would apply, the Norwegian Government would be able to bring this trade under the Convention if they applied to it the Convention standard modified only where it was unreasonable or unnecessary having regard to the nature of the voyage.

The Norwegian Government would not be able to apply the Table of Davits to all Norwegian ships plying in the North Sea. He proposed to amend the lower part of the table as follows:

<table>
<thead>
<tr>
<th>Length of the Vessel in Feet</th>
<th>Minimum Number of Sets of Davits</th>
<th>Minimum Number of Open Boats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 150</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>160 and under 210</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>220</td>
<td>250</td>
<td>4</td>
</tr>
<tr>
<td>260</td>
<td>310</td>
<td>4</td>
</tr>
<tr>
<td>310</td>
<td>360</td>
<td>5</td>
</tr>
<tr>
<td>360</td>
<td>410</td>
<td>6</td>
</tr>
<tr>
<td>Et seq.</td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>

M. NILSSON (Sweden) seconded the proposal.

SIR NORMAN HILL (Great Britain) said that the British Delegation had given careful consideration to the preparation of this table, and the Committee, including the Norwegian Delegation, had agreed that it was a reasonable table to apply to ocean-going passenger steamships. M. Pedersen's proposal was really excluding these ships from the Convention, while retaining for them the privileges of the Convention. Every nation will have to decide whether it will prefer to impose on its ships the requirements of the Convention or forgo for the ships in question the privileges of the Convention.

The North Sea trade is very troublesome, and it would not be possible for the British Delegation to agree at the moment with the Norwegian Delegation as to what regulations would be reasonable if Norway exempts these vessels. Great Britain will apply the Convention standard to British ships trading with Norway. In conclusion he thought that the Committee should not undertake to modify the requirements agreed upon for ocean trade in order to fit them in with any particular local trades.

M. PEDERSEN (Norway) said that if Great Britain adopted the Convention standard for the North Sea trade Norway would do the same.

SIR NORMAN HILL (Great Britain), continuing, said that if the Norwegian Government decided to exempt the North Sea trade from the Convention and approached Great Britain in regard to the regulations which were necessary for this trade, the Board of Trade would discuss the matter with them sympathetically. The Board of Trade, however, regard the provision of launching facilities as of prime importance, especially in small ships with large numbers of passengers.

M. PEDERSEN (Norway) subsequently informed the Committee that after consultation with the British Delegation, he proposed to leave the question to be dealt with as a part of the transitional regulations.

The Committee then proceeded to consider the question of fire prevention, detection, and extinction.

THE CHAIRMAN referred to the draft prepared by the British Delegation, and suggested that it should be adopted as a basis for discussion.

GENERAL UHLER (United States of America) seconded the proposal, which was adopted.
SIR NORMAN HILL (Great Britain) said that the British Delegation had carefully considered the motion proposed by General Uhler at the fourth meeting in regard to fire prevention, but that they thought that it would be advisable to take the opportunity afforded by this Conference of indicating broadly the particular points in regard to which administrative action was necessary. In their opinion the first question to consider is what cargo should be permitted. Then there is the difficult question of the danger due to the manner in which cargo is stowed. It is not possible to deal with this in detail, as the method of stowage and packing must vary in each case. As regards the issue of warnings as to what are dangerous goods, it is the practice in many countries to classify goods in this manner. The British Delegation attach great importance to it, and it is the only point of detail which they have included in the draft. There are many other important points of detail, such, for example, as marking the packages clearly to indicate their contents; but these must be left to each administration. Dealing with the question of detecting fire, the British Merchant Shipping Advisory Committee made very careful tests with all the mechanical systems of importance, and they were not satisfied with any of them. He personally had been informed that fires could be detected by smell more certainly than by the appearance of smoke. If a good watch is kept, fire will easily be detected, and until a really efficient automatic system is invented the British Delegation regard an efficient watch as essential. As regards extinguishing fire, detailed draft rules prepared by the British Merchant Shipping Advisory Committee had already been laid before the Committee. An attempt had been made in the present draft to summarise the principles upon which those detailed rules were formulated.

The Committee then proceeded to consider the draft, clause by clause.

Preventing Fire.

1. No passenger vessel shall (subject to the carriage of naval and military stores for the public service as authorised by the Administration. and subject to the carriage of distress signals) carry either as cargo or ballast any goods which by reason of the nature, quantity, or mode of storage thereof are, either singly or collectively, likely to endanger the lives of the passengers or the safety of the ship.

2. Each Administration shall, from time to time, by public notice issue warnings as to what goods are dangerous goods and as to the necessary precautions to be taken in the packing and storage thereof. Each Administration shall enforce the observance of such precautions in regard to all such goods as are shipped in its ports.

These two clauses were adopted unanimously after the deletion of the words "as are shipped at its ports," on the proposal of M. Riess (Germany), who said that he thought that the regulations should be held to apply to a ship even when in a foreign port.

3. In all passenger spaces:

(a.) Adequate means shall be provided for the ingress and egress of the passengers to and from the various compartments, decks, &c.

GENERAL UHLER (United States of America) seconded this clause, and proposed the deletion of the words "for the ingress and egress of the passengers," and the insertion of the words "for ingress and egress."

The clause thus amended was adopted.

(b.) In all compartments which are lighted by electric light alone an oil or candle lamp shall be placed at the exits and kept burning throughout the night.

M. WIERDSMA (Netherlands) asked whether if the vessel were provided with an electric installation on deck, quite separate from the main engines and always in operation, the oil or candle lamps would be required.

CAPTAIN CHARLES (Great Britain) said that it was the usual custom to have these lamps on all ships.

CAPTAIN BULLARD (United States of America) asked whether it was desirable to keep these lamps burning continuously. Would not the lamps be a source of danger in themselves?
M. SCHRECKENTHAL (Austria) said that the Austrian regulations do not require separate emergency lighting by oil or candle, if the emergency lighting is provided by a dynamo, which, with the boiler or motor, is so placed that the emergency lighting will remain in operation even when the main boiler and engine rooms are flooded.

SIR NORMAN HILL agreed that all that was necessary was a second independent light.

M. RIESS (Germany) proposed an alteration in the wording which would allow lamps to be placed in the alley-ways, where they would light the exits at the same time.

The whole clause was finally adopted in the following form:—

3. Adequate means shall be provided for ingress and egress to and from the various compartments, decks, &c., and in all compartments which are lighted by electric light alone, locked oil or candle lamps shall be placed to light the exits and be kept burning throughout the night.

M. SCHRECKENTHAL (Austria) proposed the following clause:—

Vessels may be exempt from this last requirement if there is an independent source of lighting above the upper deck with an independent circuit for lighting the exits: this emergency system of lighting being used at night in addition to the ship's usual lighting system.

M. WIERDSMA (Netherlands) seconded the clause.

GENERAL UHLER (United States of America) said that he was opposed in principle to any form of mechanical lighting.

The motion was therefore put to the vote, and there voted for the motion: Austria-Hungary, Belgium, Canada, Denmark, France, Germany, Great Britain, Italy, Netherlands, Norway, Russia, and Sweden; and against: the United States of America.

**Detecting Fire.**

4. An efficient watch shall be kept so that an outbreak of fire may be promptly detected. On large passenger vessels such watch shall be kept throughout the passengers' quarters by means of an organised fire patrol.

GENERAL UHLER (United States of America) seconded the clause.

CAPTAIN BULLARD (United States) asked what was meant by a large passenger vessel.

SIR NORMAN HILL (Great Britain) replied that in the following regulations a line was drawn at 4,000 tons.

After some further discussion, the clause was adopted in the following form:—

"An efficient patrol system shall be maintained so that an outbreak of fire may be promptly detected."

5. Apparatus may be accepted in lieu of the patrol system, provided its efficiency in the detection of fire be proved.

GENERAL UHLER (United States of America) said that the efficiency of many mechanical apparatus for detecting fire had been repeatedly demonstrated, although they are occasionally unreliable. He thought, therefore, that these appliances should be made obligatory. As the clause was not seconded the Chairman declared that it was deleted.

**Extinguishing Fire.**

5. All ocean-going passenger steamships shall, if over 4,000 tons gross, have three, and if of 4,000 tons gross or under two, powerful steam or equivalent pumps available for fire-extinguishing purposes. Each of these pumps shall be capable of supplying two powerful jets of water simultaneously for use in any part of the vessel.
The service pipes shall be so arranged that at least two powerful jets of water can be rapidly and simultaneously brought to bear upon any part of a deck occupied by passengers and crew, when the watertight and fire doors are closed.

M. RIESS (Germany) seconded this clause, which was unanimously adopted. Subsequently it was decided to amend it so as to read as follows:—

"5. All passenger steamships shall, if over 4,000 tons gross, have three, and if of 4,000 or under two, powerful steam or equivalent pumps available for fire-extinguishing purposes. Each of these pumps shall be capable of providing an adequate supply of water delivered in two powerful jets simultaneously for use in any part of the vessel.

"The service pipes shall be so arranged that an adequate supply of water, delivered in at least two powerful jets, can be rapidly and simultaneously brought to bear upon any part of a deck occupied by passengers and crew when the watertight and fire doors are closed."

In addition there shall be carried a sufficient number of portable fluid fire extinguishers.

M. RIESS (Germany) seconded this clause.

SIR NORMAN HILL (Great Britain) suggested that as some delegations might consider that fluid fire extinguishers were not necessarily the best, a clause empowering the administrations to accept alternative appliances should be added at the end of the rules.

M. RIESS (Germany) agreed with Sir Norman Hill's suggestion, and on that understanding the clause was adopted.

6. Provision shall be made whereby at least two powerful jets of water and an ample supply of steam may be conveyed to any space filled with cargo, provided that if the vessel is less than 1,000 tons gross the provision for a supply of steam need not be insisted on.

M. RIESS (Germany) seconded the clause.

M. GROLLOUS (France) proposed the deletion of the words "at least two powerful jets of water," because he considered that water would be useless in a cargo space.

M. HIPWOOD (Great Britain) pointed out that the rules were based upon the use of water primarily, and that if M. Grolous' proposition was adopted, no water at all would be provided for use in the cargo spaces; it might not always be possible to use the water effectively, but, in his opinion, it should always be available.

M. GROLLOUS' proposal was not seconded.

M. McDonnell (Canada) said that there would be great difficulty from an administrative point of view in the word "powerful."

After some discussion the clause was adopted in the following form:—

"Provision shall be made whereby an adequate supply of water delivered in at least two powerful jets and an ample supply of steam may be conveyed to any space filled with cargo, provided that if the vessel is of less than 1,000 tons gross the provision for a supply of steam need not be insisted on."

7. In the machinery spaces there shall be at least two fluid fire extinguishers, and, where oil is to be carried, a suitable quantity of sand.

M. LOVIAGUIN (Russia) seconded the clause.

M. RIESS (Germany) said that the German Delegation had no objection to the rule, but he suggested that, if sand got into the machinery, it would do considerable damage.

GENERAL UHLER (United States of America) agreed that sand was undesirable in the engine-room, and he described the fire extinguishers which had been tested in the United States, stating that there were chemical extinguishers which would extinguish acetylene gas or a running fire of gasoline.

M. HIPWOOD (Great Britain) and M. LOVIAGUIN (Russia) stated that their information was that sand was the best means for dealing with an oil fire. [1244—7f]
After some further discussion it was agreed to delete the words, "and where oil is to be carried a considerable quantity of sand."

With this amendment the clause was adopted.

8. The pumps must be available for immediate use prior to the ship leaving port.
9. The service pipes and fire hoses shall be made of suitable material and be of ample size. The branches of the pipes on each deck shall be so placed that the fire hose can be easily coupled to them.

These clauses were seconded by M. RIESS (Germany) and adopted.

10. Two smoke helmets shall be carried on board and be kept in different places.

This clause was seconded by GENERAL UHLER.

M. SCHRECKENTHAL (Austria) suggested the insertion of the words "and two safety lamps" after the word "helmets."

The clause was adopted with this amendment.

THE CHAIRMAN proposed, and GENERAL UHLER seconded, the insertion of the following clause:

11. Each administration may accept fire-extinguishing apparatus of other types, provided the administration concerned is satisfied by actual trial that such apparatus is as effective as that above described. Each administration which accepts other types in this manner will send particulars of the apparatus and trials to the other administrations.

The motion was adopted unanimously.

12. Fire drill shall be carried out at least once a week on board all foreign-going passenger ships, and the drill shall be recorded in the log-book.

GENERAL UHLER (United States of America) seconded this clause.

M. RIESS (Germany) suggested that once a month would be sufficient.

SIR NORMAN HILL (Great Britain) said that the effect of this amendment would be that on a transatlantic voyage there would be no guarantee that the crew had ever been drilled as a whole. If the Committee required shipowners to carry elaborate safety appliances, they must see that the crews did their share.

M. POLIS (Germany) said that it was not desirable to have fire drills while the passengers were on board, and he suggested that once a fortnight would be a sufficiently short interval to ensure that all the crew would have been drilled.

M. WIERDZMA (Netherlands) also expressed the opinion that it was not desirable to have a fire drill when the passengers were on board.

M. FURUSETH (United States of America) said that if a fire drill were held when the passengers were on board it might cause a little excitement, but would do no harm. As regards the suggestion often made that frequent fire drills were hard on the men, it could easily be arranged that neither the ship nor the men lost time by these drills if they were held in the change of the morning and forenoon watch or in the dog watches.

CAPTAIN CHARLES (Great Britain) said that a fire drill might easily cause a panic on a ship with a large number of passengers. In his opinion the proper plan was to have a special fire brigade who would turn out the hose and examine the appliances daily.

M. POLIS (Germany), supported by M. WIERDZMA (Netherlands), formally proposed the deletion of the word "week" and the insertion of the word "fortnight."

There voted for the motion: Germany, Austria-Hungary, Denmark, Sweden, Russia, The Netherlands, and Italy; and against the motion: United States of America, Belgium, Canada, France, Great Britain, and Norway.

The motion was accordingly carried by one vote.
13. The fire-extinguishing appliances shall be thoroughly examined by a surveyor at least once a year.

This clause was seconded by M. Riess and unanimously adopted.

The Committee then adjourned until Friday, the 12th December, at 10 o'clock.

J. H. BILES, Chairman.

F. P. Robinson, Secretary.
A. Bultinck, Secretary.
Twelfth Meeting.—December 11, 1913.

THE minutes of the tenth meeting were approved.

THE CHAIRMAN announced that he had anticipated the wishes of the Committee in writing to the Deputy Master of Trinity House and thanking him for the assistance which he and Captain Clark had given to the Committee in connection with the trial of the Lundin boat and the raft.

The Committee signified their unanimous approval of the Chairman’s action.

M. RIESS (Germany) then put before the Committee the proposals of the German Delegation in regard to the boat of Class 2 A. The boat is practically identical with the boat of Class 1 A or Class 1 B, except that the upper part of the sides is collapsible. In a boat of Class 1 A there will be 1 cubic foot of buoyancy for every 10 cubic feet of capacity. This buoyancy will keep the boat afloat when in a swamped condition. As the boat of Class 2 C has the upper part of the sides collapsible, it will be necessary to allow a larger amount of buoyancy. The German Delegation therefore proposed to provide 1 1/2 cubic feet of air case per person inside the boat, and outside buoyancy of 1 cubic foot per person in addition. He also proposed that in Rule 2 (b) the fourth clause should be omitted altogether, and that the rest of the rule, with the exception of the words “allowing 17 inches for each person,” should be adopted.

CAPTAIN YOUNG said that he considered one-tenth of a cubic foot outside buoyancy as too small, and it was decided after some discussion to require two-tenths of cubic foot of outside buoyancy per person.

M. RIESS (Germany) also proposed that there should be added to Rule 2 (b) a requirement that the freeboard of the boats when fully loaded should be as follows:

<table>
<thead>
<tr>
<th>Length of boat—</th>
<th>Freeboard—</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-90 metres</td>
<td>200 millimetres</td>
</tr>
<tr>
<td>8-30</td>
<td>225</td>
</tr>
<tr>
<td>9-15</td>
<td>250</td>
</tr>
</tbody>
</table>

In order to give effect to the buoyancy condition the clause in Rule 1, describing the boat of Class 2 A, should read as follows:

“Class 2 A, open life-boats, having the upper part of the sides collapsible. A boat of this type shall have efficient air cases of at least 1 1/2 cubic feet for every person the boat is deemed fit to carry, and in addition outside buoyancy, which, if of cork, shall be at least 2 cubic feet for each person.”

These amendments were seconded by the British Delegation and unanimously adopted.

The Committee then proceeded to consider the question of boat manning, and the Chairman referred to the draft proposals which had been circulated by the British Delegation, and he moved the formal adoption of the first clause.

Boat Manning.

(a.) “*An efficient boat hand* shall be defined as a member of the crew who has proved himself capable of handling boats.

M. RIESS (Germany) seconded this clause.

GENERAL UHLER (United States) proposed to delete the clause entirely and to substitute the following:

“*An efficient boat hand* shall be deemed to be a man trained in the launching, lowering, detaching, and handling of life-boats and the use of oars, and shall also have served at least one year on vessels navigating the ocean, bays, sounds, or large inland seas or lakes. Efficient boat hands shall be able to understand and answer the orders of the officers relating to life-boat service and duties. The efficient boat hand shall have a Government certificate as such.”

M. WIERDSMA (Netherlands) seconded General Uhler’s amendment in order that it might be discussed.
M. POLIS (Germany) suggested that the word "officers" should be replaced by the word "superiors," urging that on ships employing native hands it was usual for No. 1 in the boat to act as interpreter.

GENERAL UHLER (United States) said that the American Delegation considered it essential that the boat hands should be able to understand their officers.

SIR NORMAN HILL (Great Britain) said that the basis of the English proposal was a test of efficiency. The United States Delegation had elaborated the description of "efficient boat hand" by specifying some qualities which an efficient boat hand must possess. There was no great objection to that. The following words in the United States proposal ignore the test of efficiency and adopt a test of service. He regarded a test of service as the worst possible test, and personally, he thought it would be a great mistake to combine the two tests. As regards the actual wording of the American proposal some of the finest boatmen in Great Britain have never served on ocean vessels, and as to the question of understanding orders, in the trade of the British Empire native crews must in justice be allowed. At the same time it is clear that a man is not a qualified boat hand if he is not able to understand orders. Personally he would regret very much that the Committee should enter into the difficult question of colored labour. In regard to the last clause of the American proposal, if a country pledges itself to provide efficient boat hands, it will have to give certificates or adopt some other equally efficient measures. The question therefore raised by the United States amendment is whether a man should be required to prove his efficiency or whether he should be required to prove service for a certain period.

GENERAL UHLER (United States) said that there is no definition in the proposed rules as to what an efficient boat hand should be. In the matter of life-boats the Committee had gone into great detail, and he thought that some definite qualification should be laid down for boat hands. The British Government themselves do not allow a man to serve as a marine engineer until he has served a certain time at sea. All the American Delegation required was that a boat hand should have had some service in rough water.

SIR NORMAN HILL interposed at this stage, and said that the Board of Trade were proposing to establish stations in the chief ports for the purpose of testing boat hands.

GENERAL UHLER (United States), continuing, said there was no intimation in the British proposal that such a system of tests would be instituted, and in his opinion the qualification demanded by the amendment which he had proposed was not at all a high one.

As regards the language test, if it excludes coloured labour it will affect American ships as much as the ships of any other country. In the United States no matter how good a mechanic a man may be, or what his character or his attainments, he cannot have a certificate of competency as a marine engineer until he has had a year's service at sea.

M. FURUSETH (United States) said that General Uhler had stated the views of the American Delegation, but that he, personally, was not in agreement with his delegation. As a practical sailor he had been sent to the Conference by the President of the United States, and as a practical sailor he was unable to support a proposal for such a law as was proposed by his colleagues. The proposed standard is not a safety one; it is not an improvement; it is in fact a lowering of the standard which already exists. In August of last year the United States House of Representatives adopted a Bill requiring three years' service for the rating of able seamen, and at least two of such men to each boat.

After a year's discussion the Senate adopted a requirement of two able seamen or men of higher rating for every life-boat. Firemen and stewards are no more able to do the work of an able seaman than he is able to wait at table in the saloon. They cannot be taught by a few trials to handle a life-boat, a steering car, or a sea anchor. Further, the waiter's or the fireman's daily work gives him no opportunity to learn. As regards the contention that some of the best boatmen are fishermen who have never been to sea, such men, if they go to sea at all, will go on deck.

The question of training is of no importance to Germany, Austria, Italy, or France. These countries are able to require a man to serve in the Navy, or the men are trained by the Government.

[1244—78]
M. FURUSETH further objected to the title of boat hand, stating that the hand was an inanimate thing—a mere machine. It divorces the men from all the traditions of the sea, and degrades the calling. If two able seamen were required for every boat, there was no vessel which would have to take on more than sixteen additional men. He then illustrated his contention by reference to the work of the able seamen in the "Volturno" disaster, and he concluded by pointing out that, when a ship is lost, the owner of the ship, the owner of the cargo, and the underwriters are not the ones that suffer. Whatever rule is adopted by the Conference will serve as a shield to the owner of the ship. If he observes the rule he cannot be convicted of negligence, and need not seek the privilege of limited liability. He urged the Committee not to trust human lives to men picked up in the mountains of Africa and India or in the world's prisons.

THE CHAIRMAN proposed that General Uhler's motion should be considered in parts.

SIR NORMAN HILL (Great Britain) suggested that the part describing the qualities of boat hands should be inserted in addition to, not instead of, the British wording. In his opinion the British wording was stronger than General Uhler's.

M. HAVELOCK WILSON (Great Britain) said that he regarded both the proposals before the Committee as a direct blow to the trade with which he is connected. In reply to Sir Norman Hill, he urged that lawyers have shown no desire to abolish the period of apprenticeship. As regards the language test, he knew of cases in which Chinese crews, coming from different parts of China, were employed. Such men would be quite unable to understand one another, and would therefore not be able to take their orders from No. 1. Further, he did not favour the United States proposal, because it reduced the rating qualification to one year's service, whereas at present the A.B. qualification was three years' service. In his opinion the Board of Trade proposal to establish training and testing stations on shore would not be satisfactory. A man might be able to lower a boat from davits on the quay side and row the boat a short distance, but when such a man were on a ship he might even be sea-sick. He saw no reason why two fully qualified men should not be required for every boat. He did not put forward any objection regarding rafts. He regarded the deck hands as the police force of the ship, to preserve order in a panic. Without reflecting in any way upon the stewards and firemen, he considered that it is the deck department who are most reliable in an emergency. The proposals before the Committee practically abolished seamen, and, in his opinion, the Conference would make a great mistake if it called for life-boats for all without providing efficient men to work them.

THE CHAIRMAN then suggested that the Committee might consider the adoption of the following clause:—

(a.) An "efficient boat hand" shall be defined as a member of the crew who has been trained in the launching, lowering, and detaching of life-boats, and the use of oars, and has proved himself qualified to handle life-boats.

GENERAL UHLER (United States of America) and M. WIERDSMA (Netherlands) having accepted this modification of the first part of their amendment, the clause was adopted.

SIR NORMAN HILL, with reference to the next sentence in the proposed amendment, asked what the United States Delegation meant by the word "vessels." If this word would cover fishing-boats, such as the boats used by the Deal longshoremen, he thought the British Delegation might be able to agree to the year's service.

M. WIERDSMA (Netherlands) asked why it was necessary to go further than to require that the men shall have proved himself qualified to handle boats.

SIR NORMAN HILL said that he understood it was to secure that the men should not suffer from sea-sickness.

M. RIESS (Germany) said he had had great experience in yachting in small boats. He knew many fishermen who could handle boats, but who had never been on a large ship. They would learn to lower a boat in a few weeks. On the other hand, a year's service at sea does not ensure that a man will be efficient.

GENERAL UHLER (United States of America) said that an A.B. is not always the best man in a life-boat. He may have been to sea for many years without having
to launch a boat six times. What is wanted is efficient boat hands; but the American Delegation did not think a man could be an efficient boat hand unless he had had some sea service.

M. WIERDSMA (Netherlands) said that he did not think it necessary to fix a service qualification. Young apprentices coming from a school would pick up boat work in a few weeks.

M. WILMINK (Netherlands) said, in answer to M. Havelock Wilson, that his company expect the stewards to preserve order and to look after the passengers in a panic. Further, a limitation of a year's service might lead to confusion in a panic, if a question arose as to whether a particular man was authorised to act as a boat hand.

The Committee adjourned until Friday, the 12th December, at 10 o'clock.

F. P. ROBINSON, Secretary.
A. BULFINCH, Secretary.

J. H. BILES, Chairman.
Thirteenth Meeting.—December 12, 1913.

THE CHAIRMAN stated that a Report by the Third Officer of the steamship "Grosser Kurfürst" respecting the "Vulturno" disaster had been circulated to the Committee at the request of the German Delegation.

The Committee then proceeded with the consideration of the United States amendment regarding the definition of efficient boat hands.

SIR NORMAN HILL said that the next point for discussion was the qualification of a year's service. In principle, the British Delegation adhered to their opinion that the service test was of little value compared with the test of efficiency, but they were prepared, in order to meet the views of the United States Delegation, to accept the following formula:

"And has had at least one year's seafaring experience, or similar experience on large lakes or inland seas."

M. TRÉFEU (France) intervened on a point of order, and demanded that the motions should be translated into French.

THE CHAIRMAN pointed out that the draft proposals had been before the Committee for at least a week, and said that if the French Delegation had wished to insist upon a French translation being provided they should have raised the point earlier. If M. Keller would translate the document during the meeting the secretaries would have copies circulated.

SIR NORMAN HILL (Great Britain), continuing, said that in regard to the language test the experience of British companies trading to India with lascar crews was that the discipline was admirable. If "officers" in the United States text referred to the certificated officers of the ship, he was afraid that the British Delegation could not accept the clause. The North Atlantic trade is only a part of the British shipping trade, and the British Delegation must protect those native subjects of the British Empire who had for years carried out efficiently the duties of seamen. The British Delegation did not question the principle that efficient boat hands must understand the orders given them. As regards the Government certificate, it is clear that an efficient boat hand must hold a certificate issued either by the Government or under the authority of the Government, and he would suggest that the wording of the motion should be altered to "the efficient boat hands shall have a certificate as such, which certificate shall be issued under the authority of the Government."

CAPTAIN BULLARD (United States of America) said that the United States Delegation were prepared to accept the wording proposed by Sir Norman Hill.

M. FURUSETH (United States of America) asked whether a certificate issued under the authority of the Government meant simply the continuous discharge book. He had had a long experience of the sea, and knew that little value was to be attached to these certificates, depending as they did upon the personal likes and dislikes of the master.

SIR NORMAN HILL (Great Britain) said that it was not intended to rely upon the continuous discharge book for this purpose.

M. FURUSETH (United States of America) said that he wished to state distinctly that if he personally had a vote he would give it against the whole proposal, because as a sailor he was convinced that the result would be a lower standard instead of an improvement, and because the United States Government has deliberately demanded three years' sea service as the lowest service qualification that can be relied upon, and has decided that no boat should have less than two A.B.'s. A hundred years ago, before the days of insurance and limitation of shipowners' liability, the shipowner demanded four years' experience in those whom he considered qualified to take care of his property; now he considers a few trials is enough to save life.

CAPTAIN BULLARD (United States of America) in answer to the Chairman said that the United States Delegation would not object to M. Furuseth's personal views being recorded in the report of the meeting.
M. WILMINK (Netherlands) said that the Dutch Delegation considered the original proposal on the printed draft was sufficient. They did not, however, object to the amplified wording with the exception of the service qualification. He formally moved to delete the clause relating to a year’s service.

M. SCHRECKENTHAL (Austria) seconded this proposal.

SIR NORMAN HILL (Great Britain) said that, although his personal view was that a service qualification was of little value, he would not withdraw his support from the United States proposal.

M. TRÉFEU (France) asked whether the proposed wording would cover service on the Swiss lakes. Some nations take professional seamen; others try to induce landsmen to go to sea. In France they have only four to six per cent. of men from the country. Ships will have so many boats in future that deck hands will not suffice. This was seen in the case of the “Titanic,” for if sufficient boats had been provided for 3,000 persons it would have been necessary to include stewards and firemen. Unless, therefore, crews are increased threefold or even fourfold—which is not practicable—it will be necessary to use as boat hands firemen and stewards. What is the use of one year’s sea experience in a panic? There is a proverb which says that experience does not come from having seen war. He had a mule which had seen thirty years’ military service, but it was not a soldier. The motion proposes that certificates should be issued to efficient boat hands. In these circumstances there is no reason why stewards and firemen should not qualify, especially as it will not be necessary in future to sail the boats, but only to stay in the place of the disaster.

M. WILMINK (Netherlands) said that, although a shipowner, he was looking at the question from a general point of view. He did not think that the Committee should adopt any rule which would appear impracticable to shipowners, and which would appear to have been inserted solely to satisfy public opinion. In his opinion the responsibility for providing capable boat hands should be placed upon the shipowner and not upon a Government official. The Conference would probably leave the responsibility for selecting routes to the shipowners, and in his opinion the provision of competent boat hands should be left to them also.

M. FILETTI (Italy) said that the Italian Delegation were of the same opinion as the French Delegation.

M. KROGH (Denmark) suggested the following clause as an alternative:

"An ‘efficient boat hand’ shall be defined as a man who has gained proper seafaring experience in vessels or crafts navigating or being used in unprotected waters, and who has proved himself qualified in the launching, lowering, and detaching of ships' boats, and the proper use of oars. Efficient boat hands should, moreover, be able to understand and answer the orders relating to lifeboat service and duties."

In any case he wished to support the proposal for the deletion of the service qualification.

SIR NORMAN HILL (Great Britain) urged the desirability of arriving at a unanimous resolution in regard to this matter. The Committee were risking a divided vote over the year’s service qualification. Efficient boat hands would obviously require to have had some experience, and he believed that, if a muster of a crew were held on practically any of the large passenger steamships, it would be found that all the boat hands would have had more than a year's service. In his opinion a year's experience was not a substantial standard, but he thought that the Committee should fall in with the view of the American Delegation in this matter. In reply to M. Wilmink, he suggested that the selection of ocean routes was hardly a parallel, as the inevitable delay of international action rendered it impossible for the administrations to undertake the fixing of the routes.

M. WILMINK (Netherlands) said that the Netherlands Delegation were unable to accept the year’s service.

M. PEDERSEN (Norway) said that he wished to support the American amendment as modified by Sir Norman Hill.

M. TRÉFEU (France) again asked whether the words “great lakes” would include the Swiss lakes, and added that M. Furuseth had called his attention to the
United States law, which would require two able seamen for each boat. In a ship the size of the "Titanic," this would give an absurd result.

THE CHAIRMAN then put the amendment, to substitute for the first clause on the print the following:

"An 'efficient boat hand' shall be defined as a member of the crew who has been trained in launching, lowering, and detaching lifeboats and the use of oars, has proved himself qualified to handle lifeboats, and has had at least one year's seafaring experience or similar experience on large lakes or inland seas.

'Efficient boat hands shall be able to understand and answer the orders relating to lifeboat service and duties. The efficient boat hand shall have a certificate as such, which certificate shall be issued under the authority of the administration.'"

"La définition 'canotier capable' sera entendue comme s'appliquant à un membre de l'équipage convenablement exercé pour mettre en dehors, amener et détacher des embarcations de sauvetage, employer les avirons et ayant fourni des preuves de compétence au sujet du maniement d'embarcations de sauvetage.

'Des canotiers capables devront être à même de comprendre les ordres relatifs au service ainsi qu'aux obligations relatives aux embarcations de sauvetage et de répondre à ces ordres.

'Un canotier capable sera pourvu d'un certificat à cet effet, délivré sous l'autorité de l'administration.'"

There voted for the amendment—Germany, United States of America, Belgium, Canada, Great Britain, and Norway; and against—Austria-Hungary, Denmark, the Netherlands, and Russia. France and Italy reserved their votes.

THE CHAIRMAN then put the amendment as a substantive motion, and

M. WILMINK (Netherlands) moved the deletion of the words "and has had at least one year’s seafaring experience or similar experience on large lakes or inland seas."

M. SCHRECKENTHAL (Austria-Hungary) seconded this amendment.

M. RIESS (Germany) said that the German Delegation did not consider a year’s service necessary, but they would accept the amendment if "ample seafaring experience" were substituted for "one year's seafaring experience."

SIR NORMAN HILL (Great Britain) thought that "ample" was a most dangerous word.

There voted for the amendment—Germany, Austria-Hungary, Belgium, Denmark, Italy, the Netherlands, and Russia; and against the amendment—the United States of America, Canada, Great Britain, and Norway. The French Delegation reserved its vote.

M. WILMINK (Netherlands) then proposed the deletion of the last clause requiring that an efficient boat hand should have a certificate.

M. KROGH (Denmark) seconded this amendment.

There voted for the motion—Denmark, Italy, the Netherlands, and Russia; and against the motion—Germany, the United States of America, Austria-Hungary, Belgium, Canada, Great Britain, and Norway. The French Delegation reserved its vote.

M. WILMINK (Netherlands) asked what interpretation should be put upon the words "under the authority of the administration."

SIR NORMAN HILL (Great Britain) said that it was a formula which had been used in several of the rules. Each Government accepts full responsibility for the certificates issued, but if it decides to delegate the issuing of these certificates it may do so. It will remain responsible to the other Governments that the certificate is reliable.

M. FURUSETH (United States) said that there would then be nothing to prevent a Government delegating to the master of the ship the right of issuing these certificates.

M. PEDERSEN (Norway) said that he did not think that the master should be authorised to issue the certificate.

THE CHAIRMAN then put the clause, which was adopted unanimously.
(b.) For each boat or raft required to be carried on the ship efficient boat hands must be carried in accordance with the following scale:—

If the boat or raft is capable of carrying—

<table>
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<tr>
<th>Persons</th>
<th>3 efficient boat hands.</th>
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<tr>
<td>49</td>
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<td>50 to 89</td>
<td>4</td>
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<td>86 to 110</td>
<td>5</td>
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<td>111 to 160</td>
<td>6</td>
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<tr>
<td>161 to 210</td>
<td>7</td>
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and one additional efficient boat hand shall be carried for every extra 50 persons which the boat is capable of carrying.

Note.—This scale determines the minimum aggregate number of efficient boat hands to be carried in the ship; but admits of a larger or smaller number being assigned to any particular boat or raft, if circumstances require it, the actual allocation of numbers to particular boats being within the discretion of the master.

M. RIESS (Germany) seconded this motion.

M. FURUSETH (United States) said that in the practical trials made by the Committee four rowers and one steersman had been put into each boat. By this scale a boat of the same size would only have four efficient boat hands. He asked, therefore, whether it was the intention that a boat of this size should have six men to manage it, two of whom were not efficient?

SIR NORMAN HILL (Great Britain) said that the answer to M. Furuseth's question was given in the note.

M. TRÉFEU (France) again requested, as a matter of principle, that the paper should be circulated in French.

The clause was unanimously adopted.

**Boat and Fire Drill.**

(a.) Each member of the crew shall have allotted to him particular duties to perform in the event of an emergency; and a muster list, showing the stations and duties of each member of the crew shall be prepared before each voyage, and shall be posted up in the crew's quarters and in other conspicuous places.

The muster list shall assign definite duties to the various members of the crew in connection with—

1. The launching of boats attached to davits;
2. The preparation of the other boats and life-saving appliances;
3. The equipment of the boats and rafts generally;
4. The closing of the bulkhead doors, valves, etc.;
5. The muster of passengers; and
6. The extinction of fire.

M. RIESS (Germany) seconded this clause, which was unanimously adopted.

(b.) Each boat or raft shall be in charge of an officer or seaman, who shall be supplied with a list of the boat's crew, and shall be responsible for seeing that the members of the crew are acquainted with their respective duties and stations.

M. RIESS (Germany) seconded the clause.

M. HIPWOOD (Great Britain), in answer to M. Grolous (France), said that the word "responsible" in English merely meant that it would be the men's duty.

M. TRÉFEU (France) said that he thought the large boats should be in charge of an officer or petty officer, and he suggested that the words "petty officer" should be inserted after the word "officer."

M. HIPWOOD (Great Britain) said that the British Delegation would be prepared to accept that amendment, and the clause so amended was unanimously adopted.

(c.) The muster list shall assign to the members of the stewards' department their several duties in connection with the mustering of passengers at the time of emergency. These duties shall include the warning of the passengers and
seeing that they are dressed and have put on their life-jackets in a proper manner, the assembling of the passengers in the saloons, the guarding of the passages and staircases, and, generally, the regulation of the movement of the passengers.

M. RIESS (Germany) seconded the clause, but suggested that the latter part might be very much simplified. He thought that it might be sometimes dangerous to assemble the passengers in the saloons, and he suggested as an amendment the deletion of the words: “These duties . . . movement of the passengers” and the insertion of the words “It must also provide for the proper marshalling of the passengers by having the crew sufficiently instructed.”

SIR NORMAN HILL (Great Britain) agreed to the deletion of the words “in the saloons,” but thought it important to amplify the wording somewhat more than the German proposal.

M. HIPWOOD (Great Britain) said that the difference between the proposals was of little practical importance. The British Delegation, however, thought it desirable to indicate the kind of duties which might properly be performed by the stewards’ department.

M. TRÉFEU (France) urged the desirability of allotting passengers to groups of boats, and of requiring the passengers and the crews of those groups to be known to one another. He was of the opinion, however, that the arrangements must be left to the authorities in the individual ships.

M. RIESS (Germany) finally withdrew his opposition to the clause in order to save time, on the condition that the words “in the saloons” were deleted.

With this amendment the clause was unanimously adopted.

(d.) Definite signals shall be prescribed for calling all hands to their boat and fire stations as shown in the muster list, and full particulars of these signals shall be set out in the muster list.

This clause was seconded by M. RIESS (Germany) and unanimously adopted.

(e.) The master of the ship shall submit the muster list to the surveying authorities before the vessel sails.

M. EVANG (Norway) said that passenger ships were not always surveyed before every voyage. Was it necessary that the list should be submitted every voyage?

M. TRÉFEU (France) said that the muster list would not be changed every voyage, and if it were submitted to the authorities every voyage it would mean that the authorities would not look at it.

M. HIPWOOD (Great Britain) said that it would be the duty of the master to submit the list to the Board of Trade surveyors in the port of departure. As, however, some countries had not similar organisations, he suggested that instead of “surveying authorities” the clause should read “proper authority.” This would allow the customs officers, who clear a ship, to satisfy themselves that the muster list was on board.

M. TRÉFEU (France) suggested as an amendment—

“The muster list shall be approved by the competent authority, and must be submitted for approval after any important modification.”

M. WIERDSMA (Netherlands) said that the muster list would change every voyage, because the crew would change.

M. POLIS (Germany) said that it would not be possible to insert the names of the crew in the muster list, but only numbers.

The final drafting of the clause was left for further consideration.

(f.) An officer or officers told off for the purpose shall be responsible for examining all the boats, rafts, and their equipment once a week.
M. RIESS (Germany) proposed as an amendment the following clause:

"An officer or officers told off for the purpose shall be responsible for seeing that the boats and rafts and all the other life-saving appliances are kept at all times ready for use."

He added that it would be a very difficult thing to examine all the appliances weekly.

M. HIPWOOD (Great Britain) said that the British Delegation were prepared to accept the amendment, which was unanimously adopted.

(g.) Musters and drills of the crew at their boat and fire stations shall be held at least once a week when practicable, either at port or at sea. The dates upon which the musters are held shall be recorded in the official log-book, and if on any occasion a muster is not held, an entry shall be made stating why a muster was not practicable.

M. McDONNELL (Canada) seconded the proposal, and M. RIESS (Germany) proposed as an amendment to substitute the word "fortnight" for the word "week."

M. WIERDSMA (Netherlands) seconded the amendment because he considered it preferable to have the drills in port.

M. POLIS (Germany) said it was not possible to have a proper drill at sea.

SIR NORMAN HILL (Great Britain) said that the Committee were apparently regarding the North Atlantic ships only. On many British ships drills were carried out weekly.

THE CHAIRMAN then put the amendment to the vote, and there voted for the amendment—Germany, Austria-Hungary, Belgium, France, Italy, the Netherlands, and Russia; and against—the United States, Canada, Great Britain, and Norway. The Danish Delegation reserved its vote.

The clause as amended was then adopted.

(h.) Different sets of boats shall be used at each successive boat drill, and the drills and inspections must be so arranged as to secure that all the boats and rafts on the ship with the gear appertaining to them are at all times ready for immediate use, and that the crew thoroughly understand and are practised in the duties they have to perform.

M. RIESS (Germany) seconded the clause, which was unanimously adopted.

The Committee then adjourned until Saturday, the 13th December, at 2:30 p.m.

J. H. BILES, Chairman.

F. P. Robinson, Secretary.
A. Bulzinck, Secretary.
Fourteenth Meeting.—December 13, 1913.

THE CHAIRMAN said that there only remained the question of the manning of ships to be dealt with. This is one of the subjects in the “Questions before the Conference” which had been referred to the Committee. He did not wish to prolong the discussion, but as the question had been referred to the Committee it was necessary that they should consider it.

SIR NORMAN HILL (Great Britain) said that the proper manning of ships was a question to which the British delegates attach great importance. Some countries regarded it; however, as a purely domestic matter, and there were therefore difficulties in discussing it at the Conference. Since 1897 it has been British law that any vessel, whatever its nationality, may be detained in a British port if it is unseaworthy, or undermanned in such a way as to make it unseaworthy. Further, the Board of Trade insist, in the case of emigrant ships, that there shall be deck manning in accordance with a definite scale. This scale may be good or bad, but underlying it is the principle that a vessel which is not properly manned is unseaworthy. He thought that it might be desirable for the Committee to formulate a general principle of this kind. Personally, he would welcome an international standard of manning, but he saw considerable difficulty in drawing up such a scale, and therefore suggested that the Committee should adopt the following general principle:—

“All foreign-going ships carrying passengers should be efficiently and sufficiently manned, from the point of view of safety of life at sea, and any such ship not so manned shall be deemed to be unseaworthy, and dealt with accordingly.”

M. RIESS (Germany) said that the German regulations were similar to the British law. The German Government, however, consider that the manning of the ship is a matter which should be left to the internal legislation of the various States. He would, however, be prepared to agree to the principle formulated by Sir Norman Hill.

M. WIERDSMA (Netherlands) said that the Dutch Government had always adopted a similar practice to that of the British Government, but they agreed with the German delegation that the question should be left to the various States.

M. FURUSETH (United States of America) said that the attitude of the British Government in regard to all ships in British ports is that they apply their own rules and use their own discretion as to allowing ships to leave British ports, if they have reason to think them unsafe or unseaworthy. This principle he regarded as the only possible one, and he suggested that the Conference should formulate it definitely by stating that the authorities in each country are to be the judges as to whether a vessel is seaworthy before it leaves a port in that country.

M. PEDERSEN (Norway) said that he was in favour of a definite scale of manning for both passenger and cargo ships, but he was afraid that time would not allow of such a scale being drawn up. It might have been possible to agree at least upon the scale of officers and engineers. He included cargo ships because a ship without proper officers is a danger not only to itself but to other ships.

SIR NORMAN HILL then suggested that the Committee might adopt a motion in the following form:—

“The Committee accept the principle that all foreign-going passenger ships must be efficiently and sufficiently manned from the point of view of safety of life at sea, but are of opinion that the detailed regulation of the manning is a matter to be left to the internal legislation of the various States.”

M. RIESS (Germany) and M. WIERDSMA (Netherlands) stated that they were prepared to accept the formula.

M. FURUSETH (United States of America) asked whether Great Britain was prepared to surrender the right to judge of the seaworthiness of a ship. Sir Norman Hill’s proposal would, in his opinion, deprive Great Britain, and any other nation, of the right to enforce the claim which they made at the present time to judge the seaworthiness of a ship in its ports.
SIR NORMAN HILL said that he had not intended to do this, and suggested deleting the latter part of the motion, after the words "safety of life at sea."

M. FURUSETH (United States of America) said that he was prepared to accept the clause as amended.

M. PEDERSEN (Norway) also said that he was prepared to support the clause, although in his opinion it was meaningless.

The motion was unanimously adopted.

The Committee then proceeded to consider the question of the regulations for a transitional period.

M. HIPWOOD (Great Britain) said that the standard laid down in the rules which the Committee had adopted was intended to apply to new ships. It was hoped, however, that it would be applied to existing ships as soon as possible. The British Delegation had submitted for consideration certain proposals in regard to the transitional period. The main idea of these proposals was that boats and rafts for all should be provided on all ships almost immediately, and that each contracting State should pledge itself to bring into force all the requirements of the rules as soon as possible, subject to certain exceptions, and subject to certain time limits.

As regards the strength of davits, some existing davits are not quite up to the standard of the rules, although very nearly so. In such cases the British Delegation do not consider it reasonable to require that the davits should be replaced at once.

The Committee then proceeded to consider in detail the clauses proposed by the British Delegation.

Life-saving Appliances.

The signatory States undertake to secure that accommodation for all on board is provided in boats or rafts within one month of the date of the ratification of the Convention, or the 30th June, 1914, whichever is the earlier date, it being understood that for a limited period boats or rafts already on board may be retained even if they do not comply completely with the requirements laid down in the rules.

M. WIERDSMA (Netherlands) seconded the clause.

M. RIESS (Germany) said that he understood that the Radiotelegraphy Committee had decided to make no reference to the date of ratification. A date should be fixed which would be subsequent to the date of ratification.

M. HIPWOOD (Great Britain) said that this would mean postponing the application of the rules.

MAJOR KERSEY (Canada) and M. POLIS (Germany) said that it would be impossible to get the necessary appliances and boats from the manufacturers within the date specified.

M. HIPWOOD (Great Britain) said that the British rules came into force on the 1st March of this year, and that the Board of Trade had received urgent representations from shipowners, stating that their ships were due to sail on such and such a day, and that they could not get the necessary boats.

The Board of Trade had stood firm, and in most cases the rules had been complied with.

MAJOR KERSEY (Canada) remarked that the boats which had been obtained in such cases were practically valueless.

M. POLIS (Germany) suggested as an amendment the 1st January, 1915.

M. FURUSETH (United States of America) said it would be very hard to find a passenger steamship which has not boats for all. It was too good an advertisement a year ago. He therefore thought the view of the British Delegation was the right one.

M. POLIS (Germany) said that he did not agree with M. Furuseth. The result of the proposed rule would be that the shipowner would be obliged to purchase immediately any boats that he could obtain, which would be of no use when the Convention came into operation properly.
At the suggestion of M. RIESS (Germany) and M. LE JEUNE (Belgium) all reference to the date of ratification was omitted.

M. DE BERNIE (France) suggested that the last part of the motion beginning "it being understood" should be inserted as a special exemption in a later paragraph.

M. SCHRECKENTHAL (Austria) supported this amendment.

The motion was then agreed to in the following form:

"The signatory States undertake to secure that accommodation for all on board is provided in boats or rafts not later than the 1st January, 1915."

Each signatory State undertakes to enforce the full requirements of the rule on all its ships within the shortest possible period, and in no case later than the 30th June, 1915, subject to the following provisions:—

M. SCHRECKENTHAL (Austria) seconded this clause, which was unanimously adopted.

THE CHAIRMAN pointed out that the words "all its ships" meant only those ships to which the Convention applies.

In the case of existing ships and existing boats, each signatory State, if it is satisfied that it is not practicable or reasonable to require full compliance with the provisions of these rules, shall have the right to exercise discretion on the following points and to the following extent:—

1. The requirements that all boats and davits shall be of sufficient strength to enable them to be safely lowered when loaded with their full complement of persons and equipment need not be insisted upon.

M. RIESS (Germany) seconded this clause, which was adopted unanimously.

2. The requirement that pontoon life-boats shall have the bottom and deck made of two thicknesses with textile material between need not be insisted upon until the 1st January, 1918.

M. WILMINK (Netherlands) seconded this proposal.

M. RIESS (Germany) said that he understood that a pontoon life-boat that had a single skin could not be converted into one with a double skin. The rule therefore meant that all boats of the type in question would be condemned in four years.

M. LE JEUNE (Belgium) asked what was meant by a new ship.

M. HEPWORTH (Great Britain) said that this point would have to be dealt with by the Commission de Réaction. His idea was that a new ship would be a ship laid down after the signing of the Convention.

M. KROGH (Denmark) proposed the deletion of the words "until the 1st January, 1918."

M. PEDERSEN (Norway) seconded this amendment.

M. ARCHER (Great Britain) said that the Committee had laid down that boats of this type should have a double skin with textile material between. The experience of the British Board of Trade was that this was the only method of making the boats water-tight. If a comparatively small quantity of water gets into the boats it has very serious effects on the stability. If the Committee delete the date, they will allow all ships at present in existence to retain these boats indefinitely.

M. KROGH (Denmark) said that in his opinion it was not a question of stability. It was beyond doubt that the boats could be built watertight and if properly looked after they would keep watertight.

M. FURUSETH (United States of America) said that the deletion of the date was only a way of saving the shipowner expense.

The amendment was put to the vote, and there voted for the amendment—Denmark, Norway, the Netherlands, Russia, and Sweden; and against—Germany, United States of America, Austria-Hungary, Belgium, Canada, France, Great Britain, and Italy.

M. KROGH (Denmark) then moved that the date be altered to 1st January, 1920.
M. RIESS (Germany) seconded the motion, and there voted for the motion—
Germany, Denmark, France, Italy, Norway, the Netherlands, Russia, and Sweden; and
against the motion—the United States of America, Austria-Hungary, Belgium, Canada,
and Great Britain.

The date was accordingly altered to January 1st, 1920, and the motion, as
amended, was adopted.

3. The full amount of freeboard specified for pontoon lifeboats need not be
insisted upon until the 1st January, 1918."

M. SCHRECKENTHAL (Austria) seconded the motion.

M. KROGH (Denmark) proposed, and

M. RIESS (Germany) seconded, the substitution of "1st January, 1920," for "1st
January, 1918."

CAPTAIN YOUNG (Great Britain) said that if there is any deterioration in these
boats the freeboard becomes even more important. He thought therefore that the
date, 1918, should be left.

The amendment was put to the vote, and there voted for the amendment—Germany,
Denmark, France, Italy, Norway, the Netherlands, Russia, and Sweden; and against
the amendment—the United States of America, Austria-Hungary, Belgium, Canada, and
Great Britain.

The clause with this amended date was then adopted.

4. In the case of ships between 245 feet and 460 feet in length, the minimum
number of sets of davits required by the rules, as stated in the last column
of Table 1, may be reduced by one if ample provision is made for launching
the boats provided on the ship.

M. PEDERSEN (Norway) seconded the motion, which was adopted.

5. The requirement that davits must be fitted with a gear sufficient to turn a boat
out against a list need not be insisted upon.

This clause was seconded by M. RIESS (Germany), and adopted.

M. HIPWOOD (Great Britain) proposed the insertion of the following clause:

"A boat or raft which has been accepted by a signatory State on board an existing
vessel before the signing of the Convention may be accepted in place of a
life-boat or life-raft respectively until the 1st January, 1916."

M. TREFEU (France) thought that the period of grace was too short. It implied
a complete change in the boats before the 1st January, 1916. In his opinion boats at
present in use should remain in use indefinitely.

M. HIPWOOD (Great Britain) said that the British Delegation could not accept
this amendment. When the British Life-saving Appliances Rules were introduced
two years' grace was given.

M. WILMINK (Netherlands) seconded M. Hipwood's proposal.

M. FURUSETH (United States of America) said that the shipowner would be able
to dispose of his old boats either by using them on cargo vessels or by selling them.
The life of a boat is about twenty years.

M. RIESS (Germany) proposed to substitute for the 1st January, 1916, the

M. TREFEU'S amendment to delete the words "until the 1st January, 1916,"
was then put to the vote, and there voted for the amendment—Denmark, France,
Italy, and the Netherlands; and against the amendment—Germany, United States of
America, Austria-Hungary, Canada, Great Britain, Norway, Russia, and Sweden.

M. RIESS'S (Germany) amendment to substitute "1920" for "1916" was seconded
by M. WILMINK (Netherlands), and there voted for the amendment—Germany,
Austria-Hungary, Belgium, Denmark, France, Italy, Norway, the Netherlands, Russia,
and Sweden; and against the amendment—the United States of America, Canada,
and Great Britain.

The motion as amended was adopted.

[1244—78]
M. HIPWOOD (Great Britain) then proposed the following definition:—

"For the purpose of these rules, a new ship is a ship the construction of which is commenced after the signing of this Convention, and the term 'existing ships' includes all other ships."

M. RIESS (Germany) pointed out that "the date of signing the Convention" might be objectionable from a legal point of view.

M. LE JEUNE said that he considered it sufficient that an explanation of what was meant by existing ships had been given in the report of the meeting. The definition should be left to the Commission de Rédaction.

M. TRÉFEU (France) pointed out that it would be most inconvenient to date from the date of signature of the Convention.

THE CHAIRMAN therefore proposed to insert instead of the words "after the signing of this Convention," the words "after the 1st July, 1914."

CAPTAIN BULLARD (United States of America) seconded the clause as amended.

M. LE JEUNE (Belgium) said that he supported the proposal, but he pointed out that the actual date might require to be altered when the Convention was actually drawn up.

The clause as amended was adopted.

The Committee adjourned until Monday, the 15th December, at 3 o'clock.

F. P. ROBINSON, Secretaries.
A. BULTINCK, Secretary.

J. H. BILES, Chairman.
Fifteenth Meeting.—December 15, 1913.

THE Minutes of the eleventh meeting were adopted.

THE CHAIRMAN said that he wished to inform the Committee that the British Board of Trade had undertaken to approve a scheme of "nesting" boats, particulars of which had been put before the Committee by the patentees, Messrs. Clemson and Murray. He did not propose to discuss the matter, but he thought that the Committee would be interested in the information.

The Committee then continued the consideration of the transitional regulations.

Fire Appliances.

The signatory States undertake to enforce the full requirements as to the prevention, detection, and extinction of fire before the 1st January, 1915.

M. RIESS (Germany) seconded this proposal.

M. SCHRECKENTHAL (Austria-Hungary) suggested that the wording of the clause was open to objection. No delegation could "undertake to enforce" the requirements, as legislation would probably be necessary.

SIR NORMAN HILL (Great Britain) pointed out that the position was the same in Great Britain as in Austria-Hungary. Before the Government ratified the Convention the law would be altered, if necessary.

The clause was accordingly adopted.

Boat Manning and Boat and Fire Drill.

The signatory States undertake to enforce the full requirements as to boat manning and boat and fire drill before the 1st January, 1915.

M. RIESS (Germany) seconded the clause, adding that he was able to accept the date of 1st January, 1915, since the Committee had decided that no service qualification was necessary for the boat hands.

MAJOR KERSEY (Canada) asked whether the shipowners would be supported by the contracting Governments in securing discipline on their ships.

M. HIPWOOD (Great Britain) said that the point raised by Major Kersey was a familiar one. Great Britain would probably lay an obligation upon the master of the ship to enforce the necessary boat and fire drills. If the master requires greater powers than he has at present in order to secure discipline the question will have to be considered, but he did not think that it was a matter for the Conference.

M. FURUSETH (United States of America) said that practically all nations impose a penalty of imprisonment for refusal to obey lawful commands. It is not necessary therefore to give the master any additional powers. In answer to M. Havelock Wilson (Great Britain), he said that a man signing on as a fireman and refusing to go to boat drill would be liable to imprisonment for refusing to obey a legitimate command.

M. LE JEUNE (Belgium) said that in the Brussels Convention it is stated in general terms that the enforcement of the rules will be by means of penalties. Probably a similar clause will be included in this Convention by the Commission de Rédaction.

GENERAL UHLER (United States of America) said that there is no nation which at present does not enforce its laws by imposing penalties. Further, no Government would impose upon the master of a ship a responsibility that something should be done unless the master had power to insist upon that thing being carried out.

The clause was accordingly adopted.

M. TRÉFEU (France) then proposed that as the Committee had already sanctioned a reduction of one set of davits in the case of existing ships under 460 feet
in length, a reduction of one set of davits on each side should be allowed in existing ships over 460 feet in length. The reason he made this suggestion was, that it appeared to him to be logically necessary in order to complete the proposal already agreed upon.

M. RASMUSSEN (Denmark) seconded the proposal.

M. HIPWOOD (Great Britain) said that the British Delegation did not regard this reduction as necessary. The effect of it is to give to the administrations an additional discretion. The motion already passed had been suggested in order to meet the case of certain existing ships which had been brought to the notice of the Committee by the Norwegian Delegation. If the French Delegation, or any other delegation, could produce concrete cases of difficulty for vessels over 460 feet in length the Committee might then consider these cases.

GENERAL UHLER (United States of America) said that he understood that the cases to which the Norwegian Delegation had called attention were cases in which there would be sufficient boats and davits even when the exemption was made.

SIR NORMAN HILL (Great Britain) said that he had just discovered that the table of davits which the Committee had adopted was a more severe table than that recommended by the British Boats and Davits Committee, the figures for the larger ships having been increased. Personally he would like to have been informed why the table which had been approved by the British Boats and Davits Committee had been altered.

THE CHAIRMAN then put the proposal to the vote, and there voted for the motion: Belgium, Denmark, France, Italy, the Netherlands, Russia, and Sweden; and against the motion: Germany, United States, Austria-Hungary, Canada, Great Britain, and Norway.

The Committee then considered the Life-Saving Appliances Rules in the form in which they had been adopted after amendment and some textual alterations were made.

As regards boats of Class 1 c and Class 2 b it was agreed, on the suggestion of M. Riess (Germany), that the deck area per person should be $\frac{2}{3}$ square feet, but as this measure was, in the opinion of the German Delegation somewhat high, it was agreed to insert a clause to the effect that if an administration is satisfied by actual trial that there is proper seating accommodation for a greater number of persons, the persons being adult persons wearing lifebelts, this figure may be reduced to 3 feet. The persons when seated must not interfere with the proper use of the oars.

At the suggestion of M. HIPWOOD (Great Britain) it was decided to insert a general rule to the effect that when the capacity of a boat is to be ascertained by actual test, the persons should be assumed to be adult persons wearing lifebelts, and so seated as not to interfere with the proper use of the oars.

The Chairman then referred to the clause in Rule 3 which read as follows:

"The only case in which this last number may be reduced is where accommodation for a large proportion of the total number of persons on board is provided in boats whose length exceeds 15'2 metres (50 feet)."

THE CHAIRMAN stated that this clause had not been before the Committee. In the original text it had referred specifically to the boats then called Class 1 c. He thought it would be desirable to insert in the rules a provision making it possible for these large boats to be adopted in the future if an administration wished to do so.

M. RIESS (Germany) seconded the clause.

M. McDONNELL (Canada) pointed out that the rule would not prevent the whole of the life-boat accommodation on board a ship being provided in one or two of these boats with only two sets of davits. He did not think that this was desirable, and he thought a clause should be inserted to the effect that the administration must be satisfied that the launching apparatus was up to the standard, not only in speed but in safety, provided for by the table.

M. HIPWOOD (Great Britain) said that the intention in drafting the clause had been to provide for the possibility of using these large boats. No such reduction as that feared by M. McDonnell had been contemplated. He agreed, however, that M. McDonnell's point was valid, and suggested adding the following words:

"...and the administration is satisfied that this arrangement is in all respects equally efficient."
M. McDonnell (Canada) said that this proposal met his point.

M. Furuseth (United States of America) commenced a discussion with Captain Young as to the merits of the large decked life-boat.

The clause as amended was adopted.

The clause regarding arrangements to be made whereby as large a number as possible of the boats and rafts could be lowered on either side of the ship if necessary was seconded by General Uhler (United States of America) and unanimously adopted.

The Chairman then announced that the Sub-Committee, consisting of MM. Riess, Archer, and Grolous, had examined the table in Rule 3 (b), and had reported that the figures were correct. The Committee accordingly adopted the table.

The Chairman suggested that in translating the report into French it would be desirable to give the English measures, either in parallel columns or in brackets, as well as the metric measures.

M. Hipwood (Great Britain) explained that this suggestion was intended to overcome difficulties which had been found to arise. For example, the rules required 2 lbs. of biscuit per person. Accurately converted into metric measures this would be 906 grammes. In such a case it would be preferable to take the round measure and call it a kilogramme.

M. Riess (Germany) said that he was prepared to agree to this proposal, but that there were still difficulties in the tables, owing to the lengths of the ship being given to the nearest centimetre.

The Chairman suggested that a small Sub-Committee should be appointed to go into the question of the conversion of the measures, and MM. Archer (Great Britain), Tréfou (France), and Evang (Norway) were appointed for this purpose.

M. Hipwood (Great Britain) then referred to clause (q) in the regulations as to manning and boat and fire drill, the actual text of which had been left for further consideration, and he proposed that the clause in question should read as follows:

"The master of the ship shall satisfy the proper authorities before the vessel sails that a muster list has been prepared for the ship."

M. Riess (Germany) seconded the clause, which was adopted.

The Committee then adjourned until Tuesday, the 16th December, at 10 o’clock.

J. H. Biles, Chairman.

F. P. Robinson, A. Bultinck, Secretaries.
Sixteenth Meeting.—December 16, 1913.

THE consideration of the Life-Saving Appliances Rules in their revised form was continued.

M. HIPWOOD (Great Britain) proposed to substitute the following clause for the first sentence in Rule 1 (g):—

"Pontoon life-boats of all classes shall have efficient means for quickly freeing the deck of water. The orifices for this purpose shall be so arranged that when they are intermittently submerged water shall not enter the boat. The number and size of the orifices shall be determined for each class of boat by a special test."

He explained that the object of this amendment was to make it clear that there must be a proper non-return valve.

M. RIESS (Germany) seconded the proposal, and the clause was adopted.

M. SCHRECKENTHAL (Austria-Hungary) proposed that the order in which the rules were given should be modified so as to place the important rule, that boats or rafts must be provided for all on board, in a more prominent position.

THE CHAIRMAN undertook to consider, in conjunction with the Secretaries, the question of modifying the form of the report in order to meet M. Schreckenthal's views.

M. RIESS (Germany) then raised the question as to the vessels to which the rules are to apply. He referred to the fact that the Chairman had asked each delegation to forward its opinion in regard to this matter in writing to the Secretaries. He suggested that it should be clearly stated that the rules applied to passenger vessels trading 150 miles from shore. He was prepared to regard the figure of 150 miles as provisional, but he considered it essential that some indication should be given in the Committee's Report as to the vessels to which it was intended that the conclusions should apply. He formally proposed the following clause:—

"These rules shall apply to vessels which go beyond a distance of 150 miles from the nearest land."

M. TRÉFEU (France) said that the unofficial Committee of Chairmen had determined this question for all the Committees, and that at the Committee on Certificates, Dr. von Koerner had given a résumé of the proceedings of the unofficial Committee of Chairmen, and had said that it was not necessary for the Committee on Certificates to discuss the question. As regards the distance of 150 miles, he understood that the figure had been made provisional at the request of the Italian Delegation, and he had every reason to suppose that the distance adopted would be 200 miles. In these circumstances he did not consider that the Life-Saving Appliances Committee had any power to deal with the point.

SIR NORMAN HILL (Great Britain) said that he thought that the Committee should understand that the informal Committee of Chairmen had neither the power nor the desire in any way to dictate to the Committees of the Conference. The question will have to be dealt with by the Commission de Rédaction, and he understood that that Committee was to be strengthened by a member of each delegation not already represented on it. He thought, however, that some indication should be included in the report of this Committee as to the meaning assigned to the words "ocean-going," and he suggested that the Committee should put on record a statement to the following effect:—

The Life-Saving Appliances Rules should apply to all steamships carrying more than twelve passengers on ocean-going voyages between a port in the contracting State and a port outside that State. It should be left to each contracting State to define within reasonable limits a voyage which it regards as non-ocean-going.

He did not think it was necessary to define the scope of the rules with greater precision, as it would merely mean that the work would be done twice over.
M. RIESS (Germany) withdrew his motion in favour of that proposed by Sir Norman Hill. He pointed out that the Radiotelegraphy Committee had fixed definite limits.

M. MULLER (Netherlands) said that the decision of the Radiotelegraphy Committee had been adopted by a majority, and that at the request of the Netherlands Delegation, the Chairman had promised to reopen the discussion. He supported Sir Norman Hill’s proposal.

THE CHAIRMAN proposed that the Committee should proceed to consider the ships to which the rules should apply.

M. RIESS (Germany) seconded this proposal, which was adopted.

THE CHAIRMAN then invited the Committee to discuss the proposal put forward by Sir Norman Hill.

M. SCHRECKENTHAL (Austria-Hungary) proposed to delete the words “between a port in a contracting State and a port outside that State.” He also proposed “certified to carry more than twelve passengers” instead of “carrying more than twelve passengers.”

THE CHAIRMAN said that an International Conference could only deal with voyages between a port in contracting States and a port outside that State.

SIR NORMAN HILL (Great Britain) said that he hoped the Committee would not adopt M. Schreckenthal’s second proposal. The rules should apply to ships which actually had more than twelve passengers on board, even if they had no certificate.

M. WIERDSMA (Netherlands) said that, if the clause were left as originally proposed, the vessel would be within the Convention for part of the year, or even for one voyage, and outside it on another voyage. This he regarded as impracticable.

SIR NORMAN HILL (Great Britain) said that it was quite customary for a British ship to have a passenger certificate for a part of the year only, and he urged that cases of a vessel taking passengers when she has no certificate were not unknown.

GENERAL UHLER (United States of America) said that he did not understand why a ship carrying three passengers, or even one passenger, should not have to provide the same standard of safety for its passengers as one carrying thirteen passengers. He proposed that every passenger ship should be included in the Convention.

M. HIPWOOD (Great Britain) said that there was no danger that a ship would not be required to have a passenger certificate if she carried more than twelve passengers. This Committee, however, was a technical Committee, and was concerned only with the actual fact that a ship had more than a certain number of passengers on board.

M. FURUSETH (United States of America) said that the present Admiralty law is that any vessel which goes to sea with passengers is responsible for the safety of the passengers, either in full or subject to the limitation of the shipowner’s liability. If she goes from London to Antwerp and is burnt during the voyage, the passengers or their heirs can claim damages from the owner of the ship. The Committee proposed to lay down certain specific rules and to exempt from these rules vessels which do not go more than 150 miles from shore. Passengers can easily be drowned in the North Sea or in the Mediterranean, but if the case comes before an Admiralty Court, the Court will have regard to these regulations, and if the shipowner has complied with these regulations it will free him from the charge of negligence. The complete exemption of vessels which did not go more than 150 miles from the shore has therefore changed the entire conception of what might be called international maritime law.

In answer to M. McDonnell (Canada) he said that the United States shipowners had tried to exempt from all regulations the ships on the Great Lakes of America on the grounds that navigation on these lakes was safe. They had had their answer, for at the moment they were making this statement 300 people were drowned on the Great Lakes. Finally, there were more people drowned within 150 miles of the shore than in any other part of the sea. The proposition was abhorrent to him as, in his opinion, it involved a reduction and not an increase in safety.

M. RIESS (Germany) said that the rules which the Committee had framed were not suitable to be applied to the smaller vessels. The German Government had drawn up already definite rules of an effective and efficient character for their national
vessels. As a technical man, he could not be associated with the proposal to apply to small coasting vessels the rules which the Committee had drawn up.

SIR NORMAN HILL (Great Britain), reverting to M. Schreckenthal's proposal to insert "certified to carry" instead of "carrying," said that under British law the British regulations were held to apply to British ships which took passengers on board at any point in their voyage. If a vessel left Great Britain without passengers and took passengers on board abroad, the regulations would be, and were, enforced so far as possible, although the same degree of supervision was not of course practicable.

M. SCHRECKENTHAL (Austria-Hungary) said that he was prepared to withdraw his proposal in regard to this point.

As regards the proposal to delete the words "between a port in a contracting State and a port outside that State," SIR NORMAN HILL (Great Britain) pointed out that the effect of this would be to require a contracting State to apply the regulations to ships trading between two ports in that State. This, he considered, was a matter each nation should control for itself.

M. SCHRECKENTHAL (Austria-Hungary) said that he did not intend to include the national trade, but trade between non-contracting States.

M. Schreckenthal's motion was not seconded.

M. McDoNELL (Canada) asked what would happen if a foreign ship came within the limit exempted by a State from the Convention.

SIR NORMAN HILL (Great Britain) replied by referring to the case of the voyage between Germany and England. If Great Britain adhered to its present definition of home trade, while Germany regarded the voyage from Germany to England as an ocean-going voyage and therefore within the Convention, the only standard which the British authorities could enforce on a German ship in a British port would be the standard of the Convention. No difficulty could therefore arise unless the British home trade standard were higher than the Convention standard. Each nation will be free to enforce in its ports its own standard on any ship, whatever its nationality, if it is exempt from the Convention. If a ship is exempt from the Convention, it is subject to the laws of the country to which it sails.

THE CHAIRMAN then put the motion to the vote.

M. TRÉFEU (France) intervened to propose that the question should be reserved, on the grounds that the Committee of Chairmen had drawn up a draft dealing with the subject which would subsequently be referred to the Commission de Rédaction.

THE CHAIRMAN replied that M. Tréfeu had made this proposal earlier in the meeting and that it had not been seconded. The Committee had adopted a resolution to the effect that the subject should be discussed.

He accordingly put the proposal made by Sir Norman Hill to the vote, and there voted for the motion: Germany, Austria-Hungary, Belgium, Canada, Denmark, Great Britain, Italy, Norway, the Netherlands, Russia, and Sweden; and against the motion: the United States of America. The French Delegation reserved its vote.

M. TRÉFEU (France) then proposed the following motion:—

"The ships defined by article shall be provided with additional service appliances for use in embarking the passengers in the life-boats when the ship is abandoned."

"Les navires définis par l'article sont pourvus de toutes les installations matérielles complémentaires destinées à faciliter, en cas d'abandon, l'embarquement des passagers dans les embarcations de sauvetage."

"The captain shall arrange for embarking the passengers, according to the circumstances and the state of the sea."

"Le capitaine du navire prendra, selon les circonstances et l'état de la mer, les dispositions relatives à cet embarquement."

He said that he had put forward the motion only as a basis for discussion, and that he did not attach great importance to the actual text. He did not consider it possible, however, for a Conference which is occupied with the question of safety of life at sea to make no mention of the methods of embarking the passengers in the boats. Ships which have three or four decks must provide means for lowering people into the boats. In the case of the "Titanic" many people had refused to go into the boats because
there were no proper appliances for putting them in. In the case of the "Imperator," an attempt had been made to overcome the difficulty by stowing some of the boats on a lower deck. On the "Titanic" again, the captain had tried to embark the passengers from doors in the side of the ship. French captains used appliances like those used by firemen, such as canvas bags and rope ladders. His motion therefore involved two points: firstly, that additional service appliances should be provided, and secondly, that full authority should be left to the captain.

M. HIPWOOD (Great Britain) said that he agreed that the rules would be more complete if some provision were made for transferring passengers into boats. He knew that the French Delegation attached great importance to this matter, but the British Delegation were unable to agree to inserting any definite regulations in regard to it in the rules. The point, however, was covered to some extent in the rules as already drafted. For example, on p. 5 it was laid down that arrangements must be made for embarking as large a number of persons as possible in the boats, and rope ladders were required when rafts were carried. These general arrangements covered to some extent M. Tréfeu's point. If any Administration wishes to make detailed regulations it is open for them to do so.

M. TRÉFEU (France) said that, after M. Hipwood's explanation, he was prepared to withdraw the first part of his motion, but he thought that the second part, dealing with the captain's discretion, should be inserted.

M. LOVIAGUIN (Russia) seconded the proposal.

M. HIPWOOD (Great Britain) said that he did not think the inclusion of this statement was necessary, but he saw no objection to its being inserted if the French Delegation attached importance to it.

GENERAL UHLER (United States of America) said that he could not agree to a motion which implied that the captain was not at all times and on all occasions in command of his ship.

M. TRÉFEU (France) said that he appreciated General Uhler's objection, but that, if it were undesirable to state that a certain thing was part of the duty of the master, it was equally undesirable to lay down that the shipowner, whose duty it was to provide for the safety of his passengers, must provide a certain number of boats or other appliances. The Committee had given detailed indications of the duties of the shipowner. There was therefore no logical objection to giving an indication of the duties of the master.

The proposal was put to the vote, and there voted for the motion: Germany, Belgium, Canada, Denmark, France, Great Britain, Italy, Norway, the Netherlands, Russia, Sweden; and against the motion: United States of America and Austria-Hungary.

The Committee then adjourned until Thursday, the 18th December, at 11 o'clock.

F. P. ROBINSON,    J. H. BILES, Chairman.
A. BULTINCK,    Secretaries.

[1244—78]
Seventeenth Meeting.—December 18, 1913.

THE Minutes of the twelfth and thirteenth meetings were adopted.

THE CHAIRMAN stated that a large number of communications had been received from inventors and other persons demanding that the Committee would inspect their inventions. The Secretaries desired to be informed as to the wishes of the Committee in this matter. He proposed that the Secretaries should inform these gentlemen that the Life-Saving Appliances Committee were unable to witness demonstrations of any inventions. This was unanimously agreed to.

THE CHAIRMAN referred to the draft Report which he stated contained the rules agreed upon by the Committee, with one or two brief introductory clauses. These clauses had been prepared in view of the possibility of the Committee desiring something of this nature to be included in the Report. If the Committee did not wish any such remarks to be included, they could easily be removed.

SIR NORMAN HILL (Great Britain) said that it would be impossible to condense the arguments and the results of the voting on all the different questions which had been discussed by the Committee in a brief summary, and he therefore proposed that no attempt at such a summary should be made.

M. RIESS (Germany) agreed with Sir Norman Hill.

M. TREFEU (France) inquired why the text of the Report had not been circulated in French. By his instructions he was not permitted to discuss the Report excepting in the official language, which was French. Having given this explanation, M. Trefeu left the meeting.

The Committee then proceeded to revise the Report. A number of textual alterations were made in the draft, but with these alterations the Report was adopted.

During the course of the consideration of the Report, a discussion arose as to the conversion of the measures into the metric system.

M. ARCHER (Great Britain) explained the method upon which the Sub-Committee appointed to revise the figures had worked in order to eliminate, in the tables of lengths of vessels, fractions of metres or of feet.

After some discussion, the Committee decided that the lengths of the vessels should be given in feet, and in the corresponding metric measures to the nearest decimetre.

The Committee adjourned until Friday, the 19th December, at 2.30, when the Secretaries undertook to produce a French translation of the Report in its final form.

F. P. ROBINSON, Secretary.

J. H. BILES, Chairman.
Eighteenth Meeting.—December 19, 1913.

THE Reports of the fourteenth, fifteenth, sixteenth, and seventeenth meetings were approved.

M. BORIS (France) said that he had not been able to examine in detail the text of French version of the Report, but if the Committee would agree to a few verbal alterations being made subsequently, he would propose its adoption as the Report of the Committee.

M. RIESS (Germany) seconded the proposal.

THE CHAIRMAN proposed that the following clause should be added to the Report:

"The Committee desires to express its appreciation of the services of the Secretaries, MM. Robinson and Bultinck. The experience of the former as Secretary of the British Boats and Davits Committee has made the work of this Committee more easy and pleasant than otherwise it might have been. M. Bultinck, whose mastery of French and English has been of the greatest value, has had a great amount of work to do, which he has done to the Committee's complete satisfaction."

SIR NORMAN HILL (Great Britain) proposed that the Chairman should be authorised to sign the Report on behalf of the Committee.

These two proposals were accepted by MM. Boris and Rieß, whose motion, so amended, was carried by acclamation.

M. RIESS (Germany) proposed a hearty vote of thanks to the Chairman, and GENERAL UHLER (United States of America) seconded this vote, which was carried by acclamation.

THE CHAIRMAN thanked the Committee.

The Committee then adjourned sine die.

F. P. Robinson, Secretary.

J. H. BILES, Chairman.