



THE
RECRUIT'S HANDY BOOK
UNITED STATES NAVY

1908

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RECRUIT'S HANDY BOOK
UNITED STATES NAVY

PREPARED UNDER THE DIRECTION OF THE
BUREAU OF NAVIGATION

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PART I

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PAY, PROMOTION AND REWARDS IN THE NAVY.

Recruits do not always realize what the Navy offers them in the way of pay and promotion. Of course a man must not expect promotion at once. *He must be willing to begin at the bottom and work up.* In civil life he must "learn his trade," or prove his ability and faithfulness before he can rise. The same is required in the Navy; but it may be said that a man who deserves promotion is more certain to get it in the Navy than in any civil trade. He need never lose his job, he is always sure of his pay, and he is taken care of in case he is sick or disabled.

The following is the pay table for enlisted men:

CLASSIFICATION AND PAY.

Chief petty officers.

Seaman branch.	Monthly Pay.	Artificer branch.	Monthly Pay.	Special branch.	Monthly Pay.
Chief Masters-at-Arms.....	\$73	Chief Machinists' Mates....	\$77	Chief Yeomen.....	\$66
Chief Boatswain's Mates.....	55	Chief Electricians.....	66	Hospital Stewards.....	65
Chief Gunners' Mates.....	55	Chief Carpenters' Mates.....	55	Bandmasters.....	57
Chief Turret Captains.....	65	Chief Water Tenders.....	55	Chief Commissary Steward..	71
Chief Quartermasters.....	55				

Petty officers, first class.

Masters-at-Arms, 1st class...	\$44	Boilermakers.....	\$72	Yeomen, 1st class.....	\$44
Boatswains' Mates, 1st class..	44	Machinists' Mates, 1st class..	61	First Musicians.....	40
Gunners' Mates, 1st class.....	44	Coppersmiths.....	61	Commissary Steward.....	66
Turret Captains, 1st class....	55	Shipfitters, 1st class.....	61	Ships Cooks, 1st class.....	61
Quartermasters, 1st class.....	44	Electricians, 1st class.....	55	Baker, 1st class.....	50
		Blacksmiths.....	55		
		Plumbers and Fitters.....	50		
		Sailmakers' Mates.....	44		
		Carpenters' Mates, 1st class..	44		
		Water Tenders.....	44		
		Painters, 1st class.....	44		

Petty officers, second class.

Masters-at-Arms, 2d class....	\$39	Machinists' Mates, 2d class...	\$44	Yeomen, 2d class.....	\$39
Boatswains' Mates, 2d class...	39	Electricians, 2d class.....	44	Ships Cook, 2d class.....	44
Gunners' Mates, 2d class.....	39	Shipfitters, 2d class.....	44	Baker, 2d class.....	39
Quartermasters, 2d class.....	39	Oilers.....	41		
		Carpenters' Mates, 2d class..	39		
		Printers.....	39		
		Painters, 2d class.....	39		

R. L. A. N. D. Y. B. O. O. K.

CLASSIFICATION AND PAY.—Continued.

Petty officers, third class.

Masters-at-Arms, 3d class.....	\$33	Electricians, 3d class.....	\$33	Yeomen, 3d class.....	\$33
Coxswains.....	33	Carpenters' Mates, 3d class...	33	Hosp. Apprentices, 1st class.	33
Gunners' Mates, 3d class.....	33	Painters, 3d class.....	33	Ships Cook, 3d class.....	33
Quartermasters, 3d class.....	33				

Seamen, first class.

Seamen Gunners.....	\$29	Firemen, 1st class.....	\$39	Musicians, 1st class.....	\$35
Seamen.....	25	Shipwrights.....	28	Ships Cook, 4th class.....	28

Seamen, second class.

Ordinary Seamen.....	\$21	Firemen, 2d class.....	\$33	Musicians, 2d class.....	\$33
				Buglers.....	33
				Hospital Apprentices.....	22

Seamen, third class.

Apprentice Seamen.....	\$17.6	Coal Passers.....	\$24	Landsmen.....	\$17.6
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UNITED STATES NAVY

1. Petty officers of the Navy, performing duty which deprives them of quarters, and their rations or commutations thereof, shall receive \$9 per month in addition to the pay of their rating.

2. Subsistence furnished to enlisted persons attached to ships of the Navy, when unavoidably detained on shore under orders, or absent, by authority, from the ship to which attached, must be charged to appropriation "Provisions, Navy." During the time of such subsistence their rations shall be stopped on board ship, and no credit for commutation therefor shall be given.

3. Enlisted men attached to permanent recruiting offices will hereafter be allowed necessary expenses for their maintenance, not exceeding \$1 per day, chargeable to appropriation "Recruiting, Navigation."

4. Men that have successfully completed a prescribed course of instruction for seaman gunners or petty officers may be given, by the Bureau of Navigation, a certificate to that effect, which shall entitle them to receive \$2.20 per month in addition to the pay of the rating in which they are serving; such certificates to continue in force only during the enlistments in which the men were respectively graduated, unless renewed by re-enlistment for four years within four months from date of honorable discharge.

5. Each enlisted man of the Navy shall receive 82 cents per month, in addition to the pay of his rating, for each good-conduct medal, pin, or bar which he may heretofore have been, or shall hereafter be, awarded. On and after September 5, 1904, the date of the award of a good-conduct medal, pin, or bar shall be the date of the holder's discharge by reason of the expiration of the enlistment for which the medal, pin, or bar is given, the allowance of 82 cents per month to be reckoned from said date of award: *Provided*, That nothing herein contained shall be construed to authorize any change in the date of award of any good-conduct medal, pin, or bar heretofore awarded, or to grant any arrears of allowances on account thereof.

6. Coxswains detailed as Coxswains of boats propelled by machinery, or as Coxswains to Commanders-in-Chief, shall receive \$5 per month in addition to their pay.

7. All enlisted men of the Navy shall receive \$5 per month in addition to their pay while serving on board of submarine vessels of the Navy.

8. Seamen in charge of holds shall receive \$5 per month in addition to their pay.

9. Ordinary seamen detailed as Jacks-of-the-Dust, or as Lamplighters, shall receive \$5 per month in addition to their pay.

10. Enlisted men detailed as crew messmen shall, while so acting, except when assigned as reliefs during the temporary absence of the regular crew messmen, receive extra compensation at the rate of \$5 per month.

11. Enlisted men detained beyond their regular term of enlistment until the return to the United States of the vessel to which they belong shall receive for the time during which they are so detained an addition of one-fourth of their former pay, "computed on the total pay which they are entitled to receive."

12. Seamen and ordinary seamen detailed for duty as firemen or coal passers shall receive in addition to the pay of their ratings extra pay at the rate of 36 cents per day for the time so employed.

13. Enlisted men of the naval service regularly detailed as Signalmen shall receive the following extra compensation in addition to the monthly pay of their rating: Signalmen, first class, \$3; Signalmen, second class, \$2; Signalmen, third class, \$1. (General Orders, No. 110.)

14. All chief petty officers of the Navy whose pay is not fixed by law, including Chief Water Tenders, who, on or after July 1, 1903, shall receive permanent appointments after qualifying therefor, shall be paid at the rate of \$77 a month; those who serve under permanent appointments issued prior to said date, or under acting appointments, shall be paid at the rates now in force. The pay of Chief

Water Tenders who hold acting appointments shall be \$55 a month. (General Orders, No. 134.)

15. After October 1, 1903, enlisted men of the Navy, after having qualified as gun pointers, and who are regularly detailed as gun pointers by the commanding officer of the vessel, shall receive monthly, in addition to the pay of their respective ratings, extra pay as follows:

Heavy gun pointers:

First class\$10

Second class 6

Intermediate gun pointers:

First class 8

Second class 4

Secondary gun pointers:

First class 4

Second class 2

16. Enlisted men of the Navy regularly detailed by the commanding officer of a vessel as gun captains, except at secondary battery guns, shall receive, in addition to the pay of their respective ratings, \$5 per month, which, in the case of men holding certificates as gun captains, or of graduation from the gun-captain class, petty officers' school, shall include the \$2 per month to which such certificates entitle them. (General Orders, No. 137.)

17. From and after July 1, 1905, any enlisted man of the Navy detailed to perform the duties of "ship's tailor" on board of a vessel having a complement of 600 men or more, exclusive of marines, shall receive \$20 per month in addition to the monthly pay of his rating; on a vessel having a complement of from 300 to 600 men, exclusive of marines, \$15 per month in addition to the monthly pay of his rating; on a vessel having a complement of less than 300 men, exclusive of marines, \$10 per month in addition to the monthly pay of his rating. Any enlisted man of the Navy detailed as "tailor's helper" on board of a vessel having a complement of 600 men or more, exclusive of marines, shall

receive \$10 per month in addition to the monthly pay of his rating: *Provided*, That the total pay of an enlisted man detailed to perform the duties of "ship's tailor" shall not exceed \$50 per month, and of "tailor's helper" shall not exceed \$40 per month. (General Orders, No. 186.)

18. To provide adequate compensation for trained men, the pay now prescribed by Executive Order for each rating in the Navy is hereby increased \$5.50 per month during the second period of service and a further sum of \$3.30 per month during each and every subsequent period of service: *Provided*, That only enlisted men who are citizens of the United States, and whose second and subsequent periods of service each follow next after service in the Navy, that was terminated by reason of expiration of enlistment, shall receive the benefits of the increased pay named herein: *Provided further*, That in the cases of men who are or were finally discharged from the Navy by reason of expiration of enlistment, the first enlistment on or after the date of this order shall be considered the second period of service which shall carry with it the increased pay provided by this order; except that men discharged on recommendations of boards of medical survey, shall, if they reenter the service, be given credit for any previous periods of service in the Navy which were terminated by reason of expiration of enlistment.

19. Chief petty officers detailed as instructors of apprentice seamen at naval stations who qualify as instructors by examination shall receive hereafter in addition to their pay the sum of ten dollars per month while so detailed, such pay to be considered extra pay for special duty.

20. Apprentice seamen detailed as apprentice chief petty officers, apprentice petty officers, first, second, or third class, in connection with the instruction of apprentice sea-

men at naval stations, shall receive hereafter in addition to their pay the sum of two dollars and fifty cents, two dollars, one dollar and fifty cents, and one dollar each per month, respectively, while so detailed, such pay to be considered extra pay for special duty.

21. An outfit of clothing not exceeding in value the sum of \$60.00 shall be furnished, on first enlistment, to all enlisted men of the Navy.

22. Any man who has received an honorable discharge from his last term of enlistment, or who has received a recommendation for re-enlistment upon the expiration of his last term of service of not less than three years, who re-enlists for a term of four years within four months from the date of his discharge, shall receive an increase of \$1.50 per month to the pay prescribed for the rating in which he serves for each consecutive re-enlistment.

23. Seamen distinguishing themselves in battle, or by extraordinary heroism in the line of their profession, may be promoted to warrant officers, if found fitted, upon the recommendation of their commanding officer, approved by the flag officer and the Secretary of the Navy. And upon such recommendation they shall receive a gratuity of one hundred dollars and a medal of honor prepared under the direction of the Secretary of the Navy.

24. Men must remember that their pay, except what is necessary to clothe them, is nearly all clear money. They have many "allowances" in addition to their pay. Their "ration" is quite sufficient to feed them. They have no board-bill to pay! If they are sick they get medical attendance *free*. In case of serious illness they are sent

to a hospital and *cared for by the Government*. If they are injured in "line of duty" they get a pension. They would get no such allowances in civil life. The great rewards that come to a man from long and faithful service are referred to below under the heads of "Retirement," "Honorable Discharge," and "Continuous Service."

25. It will be noted above that there are certain rewards in the way of pay, etc., for men who graduate from the different classes in the petty officers' school of instruction. Proficiency in ordnance, torpedoes, engineering and electricity will ensure promotion; and men who have a special taste for clerical work are sent to the Yeoman's School. *And for the man who strives to be a good seaman, there is always promotion.* In fact, there are many different "trades" in the Navy, and a man is usually assigned to the work for which he is best fitted.

26. Recruits should carefully consider the great rewards which the Navy offers them. They should not be discouraged in the beginning, nor leave the service before they know what they are doing. They should settle down to work and remember that good conduct and continuous service *will always earn promotion*, and that life in the Navy has many bright sides. A man who is easily discouraged, or who will not work or "learn a trade," will never succeed at anything.

ADVANTAGES OFFERED TO ENLISTED MEN IN THE U. S. NAVY.

1. Men with good records, having an average mark in ordnance, taken from enlistment records, of not less than 75 per cent, who are recommended by their commanding

officers, are eligible on re-enlistment, for detail for instruction as seamen gunners.

2. Seamen distinguishing themselves in battle, or by extraordinary heroism in the line of their profession, may be promoted to Warrant Officer, if found fitted, upon the recommendation of their Commanding Officer, approved by the Flag Officer and Secretary of the Navy, and shall receive a gratuity of one hundred dollars and a medal of honor.

3. Any enlisted man of the Navy or Marine Corps who shall have distinguished himself in battle or displayed extraordinary heroism in the line of his profession, shall, upon the recommendation of his Commanding Officer, approved by the Flag Officer and the Secretary of the Navy, receive the gratuity and medal of honor provided for seamen, as above stated.

4. Gold life-saving medals may be awarded to those in the Navy or Marine Corps, who may by extreme and heroic daring have endangered their life in saving or endeavoring to save lives from the perils of the sea in waters over which the United States has jurisdiction or upon an American vessel; silver live-saving medals may be awarded in cases not sufficiently distinguished to deserve the gold medal.

5. Any enlisted person in the Navy, serving under a continuous service certificate, who shall, at the expiration of his term of enlistment, be recommended by his Captain, shall receive a *good-conduct medal* and upon continuous re-enlistments a bar or pin.

6. Any disabled person who has served as an enlisted man in the Navy for ten years, and has not been dis-

charged for misconduct, may apply for aid from the surplus income of the naval pension fund, which may be granted upon the recommendation of a board of not less than three naval officers in "suitable amount" to be approved by the Secretary of the Navy.

7. After twenty years of service, any enlisted man disabled from sea service by reason of age or infirmity and who has not been discharged for misconduct shall, if he so elects, be entitled to a pension equal to half pay, or be admitted into the Naval Home, Philadelphia, Pa.

8. Any enlisted person in the Navy who has served thirty years may be placed upon the retired list if he so desires.

9. Seamen having served not less than seven years on board of cruising vessels of the Navy and at least one year of that time as a Chief Petty Officer or Petty Officer First Class of the seaman branch, and under a continuous service certificate at the time of examination are eligible for promotion to the rank of Boatswain.

10. Candidates for appointment as Gunners in the Navy must be qualified in accordance with the following requirements:

(1)—They must be Seaman Gunners, under thirty-five (35) years of age.

(2)—They must be serving continuously in the Navy.

(3)—They must have served one year as Chief Gunner's Mate, Chief Turret Captain, or Chief Electrician, or as Gunner's Mate First Class, Turret Captain First Class, or Electrician First Class.

(4)—They must have served not less than seven years on board cruising vessels.

(5)—Their average marks on enlistment records must not be less than 85 per cent.

11. An ample ration of food is furnished gratis to every enlisted man in the Navy.

12. It is only in the naval and military services that a man's pay goes on just the same sick or well and that he has the free benefit of skillful medical attention, trained nurses, the best of medicine, and well-appointed hospitals.

13. In the long run, taking into account hard times, strikes, ill health, and bad luck, it is a question whether even a well paid mechanic on shore is better off than one of our bluejackets.

WARRANT OFFICERS.

1. Enlisted men who serve continuously and reach the grade of Chief Petty Officer or 1st Class Petty Officer are eligible for appointment as Warrant Officers. The Warrant Officers are Boatswains, Gunners, Carpenters, Warrant Machinists, and Pharmacists. The pay of a Warrant Officer is from \$1200 to \$2250 a year, and he may retire at 62 years of age on three-quarter pay.

2. Warrant officers are given a commission and rank with Ensign after six years' service. A warrant officer who can pass the examination may get a commission in the line of the Navy.

DESERTION.

1. "Every person who deserts from the Naval Service of the United States is deemed to have voluntarily relinquished and forfeited his rights of citizenship, as well as his right to become a citizen; and such deserters shall be forever incapable of holding any office of trust or profit under the United States, or of exercising any rights of citizens thereof."

2. "Every person who entices or aids any person in the Naval Service to desert, or harbors or conceals any such person, knowing him to be a deserter, or who refuses to give up such person on the demand of any officer authorized to receive him, is liable to punishment by imprisonment and fine, to be enforced in any court of the United States having jurisdiction." (Extract from the Revised Statutes of the United States.)

3. Absence without leave, with a manifest intention not to return, shall be regarded as desertion. Absence without leave, with a probability that the person does not intend to desert, shall at first be regarded as straggling, but at the end of ten days as desertion. If a person deserts his ship which is about to sail, or overstays his leave until after the ship sails, with manifest intention of escaping his duty,

and delivers himself on board another ship as a straggler, such offence shall be considered as desertion.

4. The punishment for desertion is imprisonment for 1½ to 5 years and dishonorable discharge. The punishment of death may be inflicted on any person who deserts in time of war or entices others to desert in time of war. An enlisted man found guilty of desertion forfeits to the Government all pay or money that may have been due him at the time of desertion.

5. Descriptions of all deserters are published by the Navy Department and forwarded to police authorities throughout the United States, and a deserter from the United States Navy is liable to arrest from the day of his desertion until two years after the expiration of the enlistment from which he deserted.

6. Rewards are offered and paid for the arrest of deserters, and in cases where deserters are arrested at points distant from a United States vessel they are transported from place of arrest to place of delivery. The reward and expenses of transportation are paid by the deserter out of money that is due or may become due him.

7. When men desert their duty or ship, letters are sent by their commanding officer to the next of kin, and at the same time a letter is sent to the mayor of their home city or town, informing them of such desertion. The men are from that time marked men in their home towns.

CONDUCT, RETIREMENT, AND DISCHARGE.

CONDUCT.

1. Every offence against regulations, committed by a man in the Navy, is recorded upon his "conduct record." This "conduct record" is kept by the Executive Officer, and it follows a man from ship to ship as long as he remains in the Navy. He can never escape from it. A man with a bad record is naturally viewed with suspicion. It takes time for him to remove a bad impression, and his

promotion, advancement, and privileges necessarily depend upon his conduct and his faithfulness.

2. Men should appreciate the advantage of a "clear record." When they blacken it they are injuring themselves—nobody else is affected.

3. The "conduct record" of a man, with his marks in "proficiency," "seamanship," "ordnance," "marksman-ship at great guns and small arms," "signals," "obedi-ence," and "sobriety" is the first thing that is considered when he comes up for promotion. It is the same in the Navy as in civil life—the man who is decent, honest, truthful, respectful, obedient, and industrious always gets the first recommendation for promotion.

4. The "conduct classes" of men in the Navy are based upon their records. Every report against a man puts him down a class, reduces the amount of his "monthly money," and lessens his liberty. "Special first class" and "first class" men can draw a month's pay every month (provided they leave a month's pay on the books) and they are given liberty as frequently as possible. Men on the lower classes get less monthly money, and are not allowed to go ashore so often. Hence the importance of a "clear record," both as regards promotion and pleasure. Overstaying leave, drunkenness, and smuggling liquor are very serious offences. The penalty is severe, and men who are guilty of such conduct are heavy losers when it comes to promotion and rewards.

GOOD-CONDUCT MEDALS.

1. The Navy Regulations provide medals for good conduct, as follows:

2. "Any enlisted person in the Navy, *serving under a 'continuous-service certificate'* who shall, at the expiration of his term of enlistment, be recommended by his captain therefor, shall receive a good-conduct medal."

3. "Good-conduct medals are given in recognition of good behavior, and only to men serving under a 'continu-

ous-service certificate,' and any such person recommended for one must be distinguished for obedience, sobriety, industry, courage, neatness, and proficiency, and shall not be deprived of it except by sentence of a general court-martial."

CONTINUOUS SERVICE.

1. There are many rewards for continuous service in the Navy:

2. A man who re-enlists within *four months* after being "honorably discharged" is given a continuous-service certificate and is allowed *full pay during his four months' leave*. And every time he re-enlists under a continuous-service certificate his pay is increased \$1.50 per month.

3. Men who hold "continuous-service certificates" are given the preference when it comes to promotion. After twenty-five years' service they may get shore duty at naval stations and receiving ships.

RETIREMENT.

1. After thirty years' service, an enlisted man may retire and receive *three-fourths of the pay* of the rating he holds when retired and an additional allowance of \$15.75 in lieu of quarters and rations. This will enable a man to live comfortably for the remainder of his life. There are very few chances for any such reward as this in civil life.

HONORABLE DISCHARGE.

1. Men whose conduct is good, and who are desirable for the Navy, are given an "honorable discharge" when their enlistment expires. If their conduct is bad, or if they are "undesirable," they get an "ordinary" or a "dishonorable" discharge, and they lose all the benefits of the "honorable discharge" and "continuous service." They lose the four months' full pay while on leave, the "continuous-service certificate," and they may not be permitted to re-enlist. Thus bad conduct tells very heavily

against a man in the Navy. It stops his promotion, greatly reduces his pay, and cuts off many privileges.

2. A man who behaves properly and serves faithfully and continuously in the Navy will get more rewards and more "time off" in the course of his life than he will in any civil employment. Of course he must expect to submit to hardships and restrictions at times.

DISCIPLINE AND OBEDIENCE.

1. There must be strict discipline and implicit obedience in a military service. Men must remember that the same is required in civil life. A man employed by the Pennsylvania Railroad, for instance, will be *discharged immediately* for disobedience, drunkenness, laziness, or unreliability. Such men are not wanted in any trade.

2. Obey implicitly and respectfully the orders of officers, petty officers, and sentries. Never question an order. It is quite as serious to disobey a petty officer as to disobey an officer.

3. Listen carefully to the reading of the "Articles for the Government of the Navy." The Executive Officer reads them the first or second Sunday of every month, and you will find them posted around the decks also. Be sure to read them, or listen to them, in order that you may know the regulations regarding offences, punishments, and courts-martial.

GENERAL SHIP REGULATIONS.

1. Cleanliness of person and of clothing is the mark of a good man-of-war's man. Use the shower baths, or bathe on deck, during every morning watch. Keep the hair closely cut.

2. Remember your station for all drills and evolutions.

3. Never go below without permission while on watch. Never leave your station as lookout, or on any duty, until you are properly relieved.

4. Never loiter about the galley or heads.

5. No loud or boisterous conversation, profanity, or whistling will be permitted on board ship.

6. Keep perfect silence, pay strict attention, and move quickly at drills and exercises.

7. Never talk in ranks.

8. When a "formation call" sounds, go quickly to the place of formation, fall in, and keep silence.

9. Gambling is a serious offence. Never loan or borrow money. Keep as much money "on the books" as possible, and *be very careful not to lose or waste your money.*

10. Learn the name, the use, and the lead of every rope and piece of gear in your part of the ship.

11. Keep clear of the "Quarter Deck" and the "Half Deck" except when sent there for work or drill. When you are obliged to pass along the Quarter Deck use the *port* side if at anchor, or the *lee* side if at sea. The port side of the gun deck must be kept clear. Never loiter there.

SALUTES AND COURTESIES.

POSITION OF ATTENTION.

1. Heels on the same line, and as near each other as the conformation of the man permits; feet turned out equally, and forming with each other an angle of about sixty degrees; knees straight, without stiffness; body erect on the hips, inclining a little forward, shoulders falling equally; arms and hands hanging naturally, backs of the hands outward, little finger opposite the seams of the trousers, elbows near the body; head erect and square to the front; chin slightly drawn in, without constraint; eyes straight to the front.

SALUTE WITH THE HAND.

2. 1. *Right (Left) hand*, 2. SALUTE.

(1) Raise the right hand smartly till the tip of forefinger touches the lower part of the headdress above the right eye,

thumb and fingers extended and joined, palm to the *left*, forearm inclined at about forty-five degrees, hand and wrist straight. (Two) Drop the arm smartly by the side.

(2) The salute for officers is the same.

(3) *The left hand is used only when the right is engaged.*

(4) Officers and men, when saluting, turn the head and eyes toward the person saluted.



Plate I.
Hand salute.



Plate II.
Rifle salute, at shoulder.



Plate III.
Rifle salute.

(5) The salute should be rendered at six paces before passing, or being passed by, an officer, unless the nearest point reached be greater than six paces, and not more than thirty paces, in which case salute at the point nearest the officer.

(6) The salute being returned, or the officer passed and the salute being unobserved, drop the hand quickly by the side.

RIFLE SALUTE.

3. Being at the order: 1. *Rifle*, 2. SALUTE.

Carry the left hand smartly to the right side, forearm

horizontal, or nearly so, palm of the hand down, thumb and fingers extended and joined, forefinger against muzzle of piece. (Two) Drop the left hand by the side.

The salute at "shoulder arms" is similarly executed, the elbow being at the height of the shoulder. (See Plates II and III.)

4. Enlisted men should be very careful to observe the regulations regarding salutes. There is no excuse for neglect. There is nothing more unmilitary or unbecoming than for a man in uniform to be careless about salutes. Good manners are required of everybody in a military service.

5. Whenever you meet the Captain on board ship, or when he passes along the decks, always clear the gangway, call out "attention" to those who do not see him, and stand and salute him.

6. Men are not usually required to salute other officers when they pass along the decks; but they should always clear the way for them and call out "gangway" to men who do not see an officer. Foreign officers, or officers from other ships, *should always be saluted, however*. This is very important.

7. When the Executive Officer inspects, or passes along the decks, always stand at attention and keep silence.

8. Salute *all officers* when you meet them on shore, whether they are in uniform or civilian's clothes.

9. Salute officers of the Army, Marine Corps, Militia, and Naval Militia, if you meet them in uniform, and take pride in knowing their uniform.

10. Be specially careful to salute *all foreign Army and Naval officers* when you are on a foreign station. Acquaint yourself with their uniforms and never be caught napping.

11. When you speak to an officer, or when he speaks to you, salute him. Stand at "attention" during the conversation, and salute again when the conversation is finished.

12. When you wish to see, or speak to, an officer on

board ship always go "to the mast," stand at attention and salute. The Officer-of-the-Deck when he sees you will listen to your request, and tell you what to do. Never go to an officer's quarters or speak to him unless he speaks to you.

13. When in ranks, only the person in charge salutes.

14. At "colors," morning and evening, stand at attention facing aft and salute the colors when they reach the peak in hoisting or the deck in lowering. Always stand at attention when the National Air is being played, and when the bugle signal for "silence" or "attention" is sounded.

15. Always salute the colors when you pass over the side to go on board ship, and be particularly careful to do so when you *visit any other ship than your own*.

16. Always salute the colors when you step on the Quarter Deck from forward or from below.

17. When you receive an order from an officer, always salute, say "Aye, Aye, Sir"; and then execute the order.

18. When your name is called in ranks, or at any time, by an officer, answer, "Here, sir." Always use the word "sir" when answering an officer.

19. When your name is called by an enlisted man, or petty officer, at muster, answer "Here" in a respectful tone. Always answer in a tone just loud enough to be heard; no louder.

20. At "General Muster," answer to your name by giving your rate: "Seaman, sir," or "Ordinary Seaman, sir," etc.

21. When on duty as a sentry salute all officers who pass, or speak to you.

22. When acting as messenger, always pay strict attention, move on the run, and deliver the message exactly as it is given to you.

23. Always remove your cap when you enter officers' quarters. Do not salute with your cap off, but stand at attention.

MEN'S EQUIPMENT AND CLOTHING.

1. **Fully equipped.**—The equipment will depend upon the circumstances of service. When *fully equipped* each man will carry packed knapsack and haversack, rubber-blanket, and overcoat, cartridge-belt, cup, filled canteen, and leggings. The knife-lanyard will be hauled down straight in front, and, *with the knife*, tucked inside of the cartridge-belt.

2. **Haversack and canteen.**—The haversack is worn in rear of the left hip, the canteen in rear of the right hip, with cartridge-belt over both haversack-slings and over the rear-slings of the canteen. The haversack will contain rations, knife, fork, spoon, and plate. The frying-pan, if supplied, will be carried inside the haversack or slung outside in the most convenient manner, and the plate *may be omitted*.

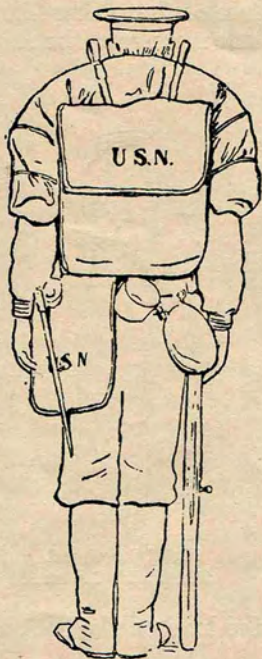
3. **Knapsack.**—(1) The knapsack will contain the following articles: One single blanket; one suit of blue or white, one suit of underclothes, two pairs of socks, one pair of shoes, one watch-cap, and one white hat, all of which shall be packed in the following order: Blanket in flat fold, exact size of knapsack, next to the back; undershirt and drawers, folded separately, flat folds, side by side, forming second layer; extra suit, similarly folded, forming third and outer layer; each layer to fit the knapsack snugly; shoes tucked down, one on each side, soles outward, heels up and flush with top of clothing; cap, or white hat, and socks on top of all; then make fast the tie-ties.

(2) The knapsack-pocket will contain towel, soap, comb, tooth-brush, sewing-kit, pipe, and tobacco. Pipe and tobacco may be carried in the haversack if preferable or practicable.

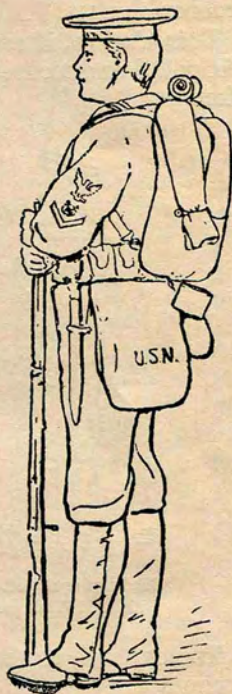
(3) When knapsacks are not provided, the most necessary of the above-mentioned articles will be carried in the blanket, neatly rolled lengthwise and stopped, the roll placed over the right shoulder, with both ends of the roll secured together under the left arm as described for an officer. It

will be impracticable, without the knapsack, to carry all the articles named.

4. **The rubber-blanket** will be rolled tightly on its width



Fully equipped.
Overcoat inside rubber-blanket



Fully equipped.
Without overcoat.

and secured by tie-ties placed in the eyelet holes; then middle it across top of knapsack and secure it by the two straps, the ends of the latter to be tightly coiled up on top. The ends of the roll to be secured down the sides of the knapsack by buttoning over them the beackets that secure the flap.

The rubber-blanket may be placed over the head and shoulders as a poncho in rainy weather.

5. **The overcoat**, if carried, to be rolled lengthwise inside the rubber-blanket.

6. **Rain-clothes**, if carried in place of the rubber-blanket, will be rolled and secured in the same manner as the rubber-blanket.



Lightly equipped.
Rifle and Canteen



Lightly equipped.
Pistol and Canteen.

7. **The cup** will be secured by the loop on the bottom of the knapsack.

8. **Special service.**—When not required by the special nature of the service, any of the above-mentioned articles may be omitted by direction of the commander-in-chief or senior officer present. Climatic and other conditions must determine what shall be worn and what shall be carried.

9. **Lightly equipped.**—When lightly equipped, men will carry filled canteens and cartridge-belt and wear leggins. The haversack may be prescribed if circumstances require it.

MESSENGERS AND LOOKOUTS.

1. When on duty as messenger, sentry, lookout or signal man be strict and military. Keep a sharp lookout. Report everything promptly.

2. When you relieve another man, say, "I am ready to relieve you."

3. When you are relieved always turn over all orders, and tell your relief everything that he should know about the duty at the time.

4. A lookout aloft must report all sails, land, buoys, lightships, lighthouses, or anything that he is told to report. He reports in a tone loud enough to be heard on deck: "Land ho!" "Sail ho!" "Light ho!" And when the Officer-of-the-Deck answers, "Where away," he answers the bearing: "One point on starboard bow, sir!" or "On the port beam, sir!" or "Two points on the starboard quarter, sir!" or whatever the direction may be. And if the Officer-of-the-Deck asks, "Can you make it out," the lookout answers, "Steamer, sir"; "White light, sir"; or whatever it is. If he can't make it out he answers, "Can't make it out, sir."

GUARDS AND SENTRIES.

1. *All persons in the Navy are required to observe respect toward Sentries, Corporals of the Guard, Masters-at-Arms, and other men on police duty. Disrespect, disobedience, or interference with sentries or police is a very serious offence.*

2. Never talk to a sentry or to a man on guard, and always obey his orders quickly and silently.

3. Neglect of duty by a sentry is a court-martial offence. "Asleep on watch," whatever the duty, is a court-martial offence.

MONTHLY MONEY, ALLOTMENTS AND DEPOSITS.

1. Monthly money is issued once a month. The amount a man gets depends upon his "conduct class."

2. Enlisted men are permitted to "allot" any part of their pay to relatives. The Paymaster makes out the allotment and it is paid monthly from the Navy Pay Office nearest to the person designated. Men should not allot so much of their pay that they will not have enough left for their own expenses.

3. The Paymaster of a ship will receive deposits of money or valuables at the risk of individuals. Every precaution will be taken for the safe-keeping of such deposits.

4. Men may deposit money with the Paymaster in sums not less than \$5 *and receive interest thereon from the Government at the rate of 4% per annum.* Each depositor is furnished with a deposit book. This is an excellent way for a man to save money. Each man is also furnished with a small book in which to keep his accounts.

CLOTHES.

1. Men should be careful of their clothing at all times. They should remember that every article of clothing represents a certain sum of money. When a man is careless with his clothing, loses it or destroys it, he throws away money. Never leave clothing adrift, even for a moment.

2. Cleanliness of clothing is strictly required. Scrub all soiled clothes whenever the routine permits.

3. Clothes must be plainly marked, provided with stops, and kept in the bags at all times.

4. Shoes must be marked by cutting initials on sides of heels; they must be removed when decks are wet or are being scrubbed.

5. Any man having the clothes or effects of another in his possession will be under suspicion. Particular attention must be given to this.

Buying, selling, borrowing, lending, or destroying clothing, bedding or small stores, whether drawn from the Paymaster or brought from home, is strictly pro-

hibited. Any article of clothing found must immediately be taken to the officer of the deck. Clothing bought at auction must be marked at once.

6. Men must *always* be in the prescribed uniform—not only at “quarters,” but at all times. And they must always keep their clothes in repair and never wear soiled clothes except to coal ship, or when directed to do so.

MARKING CLOTHES.

GENERAL ORDER No. 48 (REVISED).

Every article of clothing shall be legibly marked with the owner's name as soon as drawn. The bottom of the name is to be parallel to the lower edge of the piece marked when practicable.

OVERSHIRTS.—On the outside of the front and on the inside of back, both marks being placed 1 inch from the bottom of the shirt, the former across the center line and the latter to the right of the center line; also on the underside of the collar.

JUMPERS.—On the inside of the hem, across the center line of the front and to the right of the center line of the back; also on the underside of the collar.

TROUSERS.—On the inside of the back of both legs, close to the bottom hem.

UNDERSHIRTS.—On the outside of the front, 1 inch from the bottom of the shirt and to the right of the center.

DRAWERS.—On the outside of the right half waistband.

NECKERCHIEF.—In center.

CLOTH CAP.—Inside crown.

WATCH CAP.—Inside, $\frac{1}{2}$ inch from bottom.

WHITE HAT.—On the sweat band.

LEGGINS.—Inside, *vertically*, on panel nearest the strap.

JERSEYS.—As may be prescribed by Navy Department.

WOOLEN SOCKS.—As may be prescribed by Navy Department.

MATTRESS.—In center line, 4 inches from each end.

MATTRESS COVER.—Right corner, 4 inches from open end.

BLANKETS.—All the right-hand corners, 4 inches from each end.

RUBBER BOOTS.—Up and down outside and inside of leg.

RUBBER BLANKET.—Inside across one corner.

SHOES.—Cut initials in sides of heels; stencil inside.

FOLDING CLOTHES.

1. Turn all clothes, except overcoats and underclothes, inside out before folding; brush clean, roll up tightly, smoothing all the wrinkles, and secure with a white cotton stop 2 inches from each end of the roll. The stops are tied in a square knot and ends tucked **inside** the roll. The name must show plainly lengthwise of the top of each roll.

2. Fold clothes as follows:

ALL TROUSERS.—Fold one leg over the other so that the seams on the inside of the legs come together. Turn waistband back to middle of the leg, tuck in the seat and roll toward the bottom of the leg.

DRAWERS.—Same as trousers, except roll from the bottom of the leg upward.

OVERSHIRTS AND WHITE JUMPERS.—Place one sleeve directly over the other, the front of the shirt being on the inside of the fold and the collar extending above the neck with the two side edges together on inside of collar. Fold collar lengthwise of shirt. Fold arms back over collar twice and roll back from neck toward lower edge of the shirt.

UNDERSHIRTS.—Same as overshirts, excepting directions concerning collars.

JERSEY.—Same as undershirt.

OVERCOAT.—Lay the overcoat out flat, outside up, sleeves along side, collar turned down as when worn.

Fold back each half of the front over the sleeve nearest it, and then fold one-half of the coat over the other half. Fold upper third of coat over center third and lower third back over upper third. Secure with a long stop around center.

3. When clothes are taken out to be worn, the stops are to be placed in the ditty boxes.

4. When clothing is to be washed the stops must be rove through the eyelet holes before the clothes are wet, and used to stop the clothes on the lines. Rope yarns will not be allowed in the bag or on the lines. If the clothes stops are lost, new ones must be made from canvas threads.

STOWING CLOTHES. BAGS.

1. Clothes are to be kept in white canvas bags, the rolls being stowed in layers of three pieces, each layer at right angles to the one below it.

2. Put blue clothes and cap in the bottom of the bag, white clothes and hats next, small bags, socks, and other small articles on top.

3. Secure the bag with two turns of the lanyard as close down on top of the contents as possible. Keep overcoats in divisional coat bags, or stowed in bottom of clothes bags as may be ordered.

4. Men should be careful to keep their bags clean at all times. They will save themselves much labor by so doing.

5. Never drag a bag along the deck, or put it down except in a clean dry place.

6. When bags are scrubbed be sure to get them perfectly clean and to wash all the soap out of them to avoid having to re-scrub them.

BAG INSPECTION.

1. Bags are to be kept ready for inspection at all times.

2. The division will go to the berth deck, take up bags,

fall in again for inspection, and open ranks. Men will stand at attention behind their bags until they receive the command "Lay out bags for inspection," when the clothes will be taken out of the bags and placed in two piles—blue in one and white in the other. Lay the bag on deck, the number on the bottom toward the inspecting officer and showing. Place the clothes on the bag in a single layer of two rows, names on top, blue clothes to the right, and white clothes to the left of the recruit; on board ship, blue clothes forward and white aft.

3. Division officers will see that the inventory of clothes belonging to each man is kept up to date, and, at inspection, that nothing has been disposed of without permission, and no extra article in his possession.

4. Arrange clothes in the following order, commencing at the bottom of the bag, the outer ends of pieces being in the same straight line:

BLUE CLOTHES.—Trousers, overshirt, jersey, overcoat, flat hats, watch caps, socks and leggings.

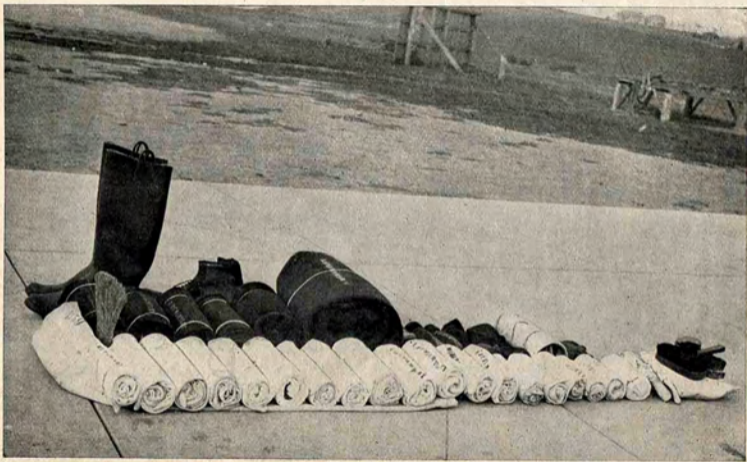
WHITE CLOTHES.—Trousers, jumpers, mattress covers, undershirts, drawers, towels, hats, socks, and small bags. Rubber boots on the right with toes even with bottom of the bag, shoes in rear of boots. The whisk broom is placed between the two rows of clothing and stood on end between the white and blue trousers.

5. The first command will be followed, five minutes later by the command "Attention." Men will stand at attention at the open ends of their bags, facing the inspecting officer, and bringing silence.

All clothing must conform to the uniform regulations and must be worn in a regulation manner; all men must wear underclothes, socks, and good shoes; shift and scrub underclothes twice a week and mattress covers weekly; come to quarters in clean uniform and with shoes shined.

HAMMOCKS.

As with bags, men should be very careful to keep their hammocks clean at all times and thus save labor. Never let a hammock touch the deck except at inspection. Sling it neatly and lash it tautly according to regulation meth-



BAG INSPECTION.

ods prescribed below. Scrub it clean, and be sure to get all the soap out before stopping it on the line.

SLINGING HAMMOCKS.

Hook the ring of the clews to a hammock hook, pass each outer nettle from out in through the eyelet on its own side of the hammock. Square the two nettles and take a half hitch with each. Pass the remaining nettles in the same manner, extending the end of each through the hitch following it toward the center. Sling the other end in the same manner.

LASHING HAMMOCKS.

Place the mattress square in the hammock, fold the blanket crosswise four times and place it lengthwise to the hammock on top of the mattress, and roll up taut, with edges overlapping. Lash with seven marline turns the ends being just clear of the bedding. Extend the spare end along its own part, on the upper side of the hammock. Turn the hammock over several times to twist the clews; unhook one end at a time and tuck the clews under the lashing and haul them taut.

When reveille is sounded, hammocks are to be stowed within 15 minutes after.

HAMMOCK INSPECTION.

1. At the order "Lay out hammocks for inspection," unlash and spread out the hammock, the name on the mattress being turned toward the inspecting officer.

2. Fold the mattress cover and blanket twice crosswise, placing them respectively 10 inches from the head and foot of the mattress. Throw the clews over the mattress and coil up the lashing at its head.

3. The order "Attention" will follow five minutes later. Men will stand at attention at the heads of their hammocks until the inspection is over.

4. The weather permitting, bedding shall be aired weekly.

STOPPING ON WASH CLOTHES, BAGS, AND HAMMOCKS.

1. Clothing will be stopped to the clothes line with clothes stops, each piece of clothing lapping the piece forward of it one-third. Take round turns of the stops on the line and tie square knot.

2. When stopping on blankets and mattress covers hitch the clothes stops to the upper corners.

3. Hammocks will be stopped to the girtline with three clothes stops, one in each end and center eyelet hole. Take round turn around girtline with stops and tie square knot.

4. The stops for bags should be made fast to the bottom on the inside—either sewed on securely or, preferably, passed through two eyelets in the bottom. The bag should be turned inside out before stopping on. It is most important to use *strong stops* with bags and hammocks and to pass them very securely to prevent them from being blown off in bad weather. It is quite inexcusable to lose articles off the line.

THE LUCKY BAG.

Bags, hammocks and clothes unclaimed, as well as the clothes found adrift at any time, are to be put in the lucky bag. The owners will be placed on the report.

PART II

PRACTICAL INSTRUCTION

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PRACTICAL INSTRUCTION.

1. The first part of this book is devoted to information of a general character regarding the naval service, its rewards and its demands. Men should be made familiar with all these matters, particularly as to the necessity for perfect cleanliness, the importance of salutes, and the advantages that come from good conduct, obedience and attention to duty. If men get *started right*, much trouble will be avoided; and their instruction will proceed more smoothly when they appreciate the importance of good conduct and industry.

2. The following pages are intended to cover the rudiments of a man-of-wars-man's practical instruction. The information and the questions will greatly assist petty officers and "squad leaders" in the work of instructing recruits. Special types of ships may need additional information and questions, which can be supplied by divisional officers.

3. It should be the aim of practical instruction to give men a good working knowledge of everything under this head. But special effort should be made to teach them the following:

4. (1) The necessity for neatness, cleanliness and good manners.

(2) To pull a good oar.

(3) To heave the lead.

(4) To hit the target with all arms.

(5) To make and read signals.

(6) To steer the ship.

(7) To box the compass.

(8) To heave, or read, the log.

(9) Knotting and splicing.

(10) Palm and needle.

5. The "daily routine" will develop men physically, make them active and fearless aloft, and enable them to pick up general knowledge of seamanship and ordnance.

SEAMANSHIP.

6. The following information will be particularly necessary on board sailing or full-rigged ships:

When a topsail is set, where and how should the upper end of reef earings be made fast? Why?

What gear must be let go before bracing in a topsail?

How should braces be tended in hoisting a sail on or before the wind?

What gear should be overhauled in bracing up a lower yard? Why?

When lower yards are squared, what is hauled taut?

What gear should be overhauled or slackened in boarding the fore and main tracks? Is there any difference in the two cases? Explain fully.

How take in a topsail in a gale, and why?

How take in a topgallant sail in a fresh breeze, and why?

What care must be taken with reef points, third and close reefs?

What gear must be slacked in hauling out reef tackles for the close reef, and sometimes for third reef?

Why man lee brails best in taking in trysail or spanker?

Why keep turn with sheet in taking in headsails or staysails, fresh breeze?

What do with vang in setting or taking in spanker?

What are preventer braces, and when are they used?

What canvas is used in gales?

7. Enlisted men should know the names of:

PARTS OF A SHIP.

Spar deck.

Gun deck.

Berth deck.

Hold.

Half deck.

Poop deck.

Forecastle.

Quarter-deck.

Bow.

Amidships.

Gangways.

Waterways.

PARTS OF A SHIP.—Continued.

Topgallant forecastle.	Rudderpost.
Knightheads.	Rudder.
Figureheads.	Shoe.
Limbers.	Bow, stern.
Double bottoms.	Quarter.
Steerage.	Heel.
Wings.	Keel.
Bread rooms.	Keelson.
Storerooms.	False keel.
Tanks.	Bilge.
Magazines.	Bilge keels.
Shell rooms.	Bends.
Bunkers.	Water line.
Chain lockers.	Manger.
Topsides.	Run.
Bulwarks.	Taffrail.
Counter.	Bumpkin.
Stem.	Hammock nettings.
Cutwater.	Scuppers.
Forefoot.	Ports.
Water-tight bulkheads.	Port sills.
Beams.	Carlings.
Sternpost.	Knees.

8.

SHIP'S FITTINGS.

Stanchions.	Fife rails.
Rudder.	Pin rails.
Rudderpost.	Belaying pins.
Gratings.	Eyebolts.
Hatchways.	Fish boom or davit.
Combings.	Billboard.
Hawse holes.	Channels.
Bucklers.	Horse block.
Chain pipes.	Chain plates.
Chain bitts.	Sea steps.
Topsail sheet bitts.	Accommodation ladders.

SHIP'S FITTINGS.—Continued.

Davits.	Cleats.
Hammock cloths.	Clevis bolts.
Headboards.	Companion ladders.
Boom covers.	Cavils.
Shoe.	Manropes.
Bitts.	Wheel.
Shelf piece.	Wheel ropes.
Scuttles.	Yoke or tiller.
Ringbolts.	

KNOTTING AND SPLICING.**FIRST LESSON.**

9. The following knots, etc., will be taught as soon as possible, when the divisions have knotting and splicing:

1. Rope-yarn knot.
2. Overhand knot.
3. Figure-of-eight knot.
4. Bowline.
5. Reef or square knot.
6. Round turn and half hitch.
7. Clove hitch.
8. Blackwall hitch.
9. Timber hitch.
10. Half hitch.
11. Two half hitches.

Squad leaders will be held responsible for this instruction, and will report to divisional officers when the instruction is complete. Every man must be made proficient.

SECOND LESSON.

10. The following will be taught as soon as the men become proficient in the knots on the previous list:

1. Running bowline.

SECOND LESSON.—Continued.

2. Bowline on a bight.
3. Sheepshank.
4. Cat's-paw.
5. Sheet bend.
6. Double sheet-bend.
7. Marlin-spike hitch.
8. Half hitch and a seizing.
9. Carrick bend.
10. Fisherman's bend.

As soon as the men have become *proficient* in this and the previous lesson, they will be taught to make other knots and splices.

11. The men should be taught the particular use for each one of these knots; without this the instruction is incomplete.

12. The following are important:

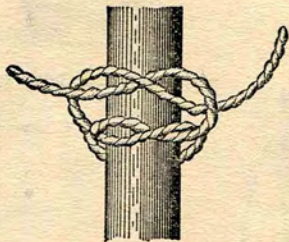
- | | |
|--|--------------------------------|
| To make a short splice. | To bend a hawser to an anchor. |
| To make a long splice. | Grommet. |
| To make an eye splice. | Cross seizing. |
| To splice a wire rope. | Quarter or flat seizing. |
| To pass a stopper. | Parceling. |
| To mouse a hook. | Serving. |
| To put a strap on a rope. | Sword mat. |
| To put a strap on a spar. | Throat seizing. |
| To rig and know the use of a parbuckle. | Wall and crown. |
| To sling a cask. | Matthew Walker. |
| To sling a cask on end. | Sennit. |
| To lower a man down from aloft. | Racking. |
| To take a turn around a cleat. | Rose lashing. |
| To put on a topgallant and royal purchase. | Common whipping. |
| To bend two hawsers together. | Worming. |
| | To strap a block in all ways. |



Over-hand knot.



Figure-of-eight knot.



Reef or square knot



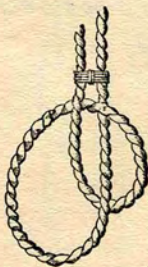
Bowline.



Running bowline.



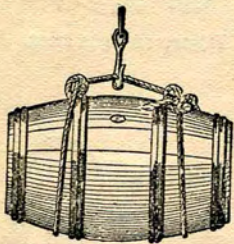
Bowline on a bight.



Half hitch.



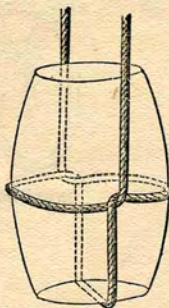
Two half hitches.



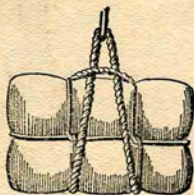
Hogshead sling.



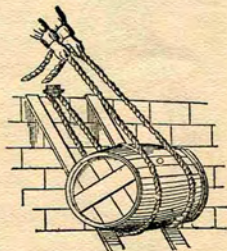
Sling a cask, head up.



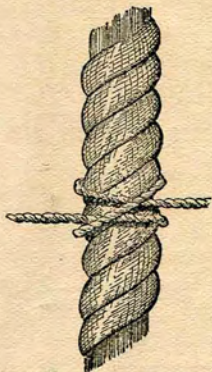
Sling a cask, head up.



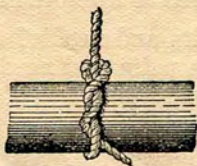
Bale sling.



Parbuckle.



Clove hitch; or ratline hitch.



Timber hitch.



Round turn and half hitch.



Timber and half hitch.



Sheep shank.



Blackwall hitch.



Catspaw.



Marling hitch.

PALM AND NEEDLE.

13. What is a palm and needle?

How do you use a palm and needle?

What is a flat seam?

What is a round seam?

What is a "whipping"?

What is "middle stitching"?

Every seaman should know how to use a palm and needle.

MARLINE SPIKES.

14. What is a marline spike?

How do you use one?

What precaution when you go aloft with a marline spike?

STANDING AND RUNNING RIGGING.**STANDING RIGGING.**

15. What is "standing rigging"?

What are fore-and-aft stays?

Of what use are fore-and-aft stays?

What are shrouds?

What are backstays?

Of what use are backstays?

What are rigging lanyards?

What are futtock shrouds?

What are jackstays?

What are footropes?

What are stirrups?

What is a flemish horse?

What are pacific irons?

What are cat harpins?

How set up standing rigging?

How put on a ratline?

What are "Jacob's ladders"?

What is a "parrel"?

STANDING RIGGING.—Continued.

- What are "jaws" ?
 What are bob-stays ?
 What is a "jumper" ?
 What is the "dolphin striker" ?
 What are "back ropes" ?
 What are the "jib guys" ?
 What are "bowsprit shrouds" ?

RUNNING RIGGING.

16. What is "running rigging" ?
 What gear is rove through the quarter block on the topsail yard ?
 What gear is made fast to the clew of a topsail ?
 What gear is made fast to the clew of a foresail ?
 What gear is made fast to the clew of a spanker ?
 What gear would you man taking in a spanker ?
 What gear is made fast to the foot of a topsail ?
 What gear is made fast to the after leech of a spanker ?
 What are "sheets" ?
 What are "halliards" ?
 What are "down hauls" ?
 What are "clew lines" ?
 What are "bunt lines" ?
 What is a "bunt whip" ?
 What are "reef tackles" ?
 What are "clew garnets" ?
 What are "leech lines" ?
 What are "tacks" ?
 What are "throat" and "peak halliards" ?
 What are "vangs" ?
 What are braces ?
 What are "lifts" ?
 What are "topping lifts" ?
 What are "guys" ?
 What are "brails" ?
 What is a "clew rope" ?

MASTS, YARDS AND SAILS.**MASTS AND YARDS.**

17. What is the step of a mast?
 What is the heel of a mast?
 What is a "lower mast" ?
 What is a "topmast" ?
 What is a topgallant-mast?
 What is a royal mast?
 What is a masthead?
 What are the doublings of a mast?
 What is the "bowsprit" ?
 What is the "jib-boom" ?
 What is the "flying jib-boom" ?
 What is the cap?
 What is the "truck" ?
 What is the "jack" ?
 What is the "top" ?
 What is the "lubber's hole" ?
 What is a "fid" ?
 What are the bibbs?
 What are the trestle trees?
 What are the crosstrees?
 What are the "whiskers" ?
 What are "lower booms" ?
 What is a "goose-neck" ?
 What is the futtock band?
 What is the truss band?
 What is the bolster?
 What are the slings of a yard?
 What are the quarters of a yard?
 What are the yardarms?
 What is a "gaff" ?
 How send down the light yards?

SAILS.

18. What kind of canvass are sails made of?
 Name the different parts of a square sail.

SAILS.—Continued.

Name the different parts of a fore-and-aft sail.

On what side of a square sail is the roping?

On what side of a fore-and-aft sail is the roping?

Make up a fore-and-aft sail for bending.

What are cringles?

What are robands?

What are spectacles?

What are gaskets?

What are bowline bridles?

What are "buntline toggles"?

What is the "bunt" of a sail?

What is the "bunt glut"?

What are reef earings?

What are reef points?

What difference between 3d and 4th reefs, and 1st and 2d?

How make up a sail to send to sailroom?

Name all the "fore-and-aft sails" of a ship.

Name all the "square sails" of a ship.

How loose square sail?

How furl square sail?

How reef square sail?

How loose fore-and-aft sail?

How reef and furl fore-and-aft sail?

WHIPS, BLOCKS AND TACKLES.

19. What is a "single whip"?

What is a single purchase?

What is a double purchase?

What is a "treble" purchase?

Name the different kinds of blocks.

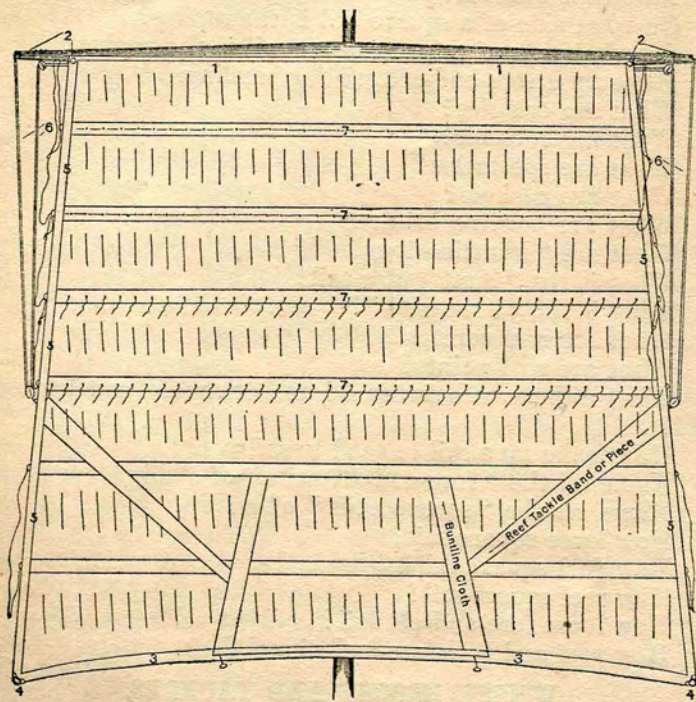
What is a "dead-eye"?

What is a "heart"?

What is a "thimble"?

What is a "block strap"?

What are "sister hooks"?



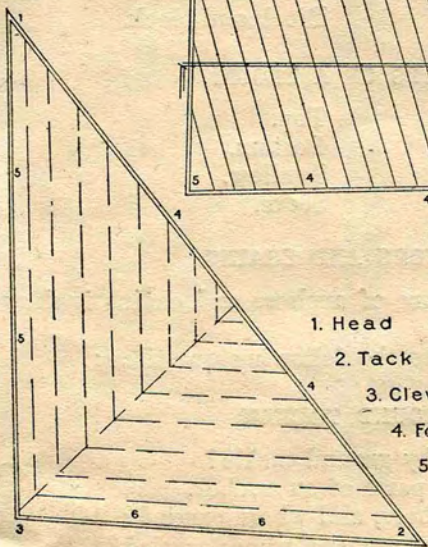
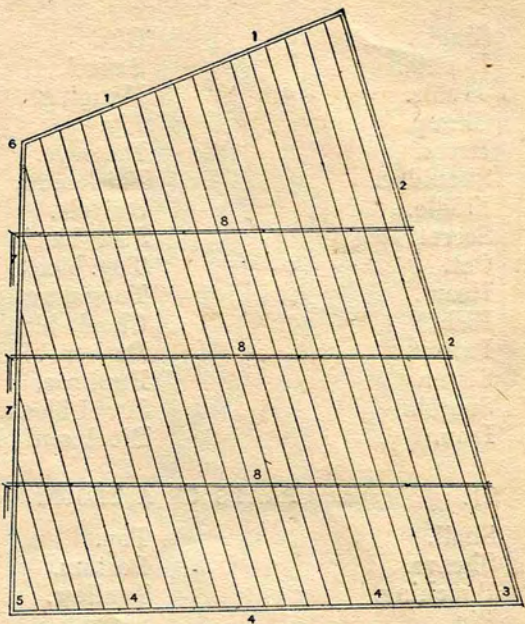
TOPSAIL

- | | |
|--------------------------|-------------------------|
| 1. Head | 4. Clew |
| 2. Cringle (Head earing) | 5. Leech |
| 3. Foot | 6. Reef Tackle |
| | 7. Reef Points & Bands. |

PLATE V.

SPANKER

- 1. Head
- 2. Leech
- 3. Clew
- 4. Foot
- 5. Tack
- 6. Throat
- 7. Fore leech
- 8. Brails



JIB

- 1. Head
- 2. Tack
- 3. Clew
- 4. Fore leech or luff
- 5. After leech
- 6. Foot

20.

BLOCKS.

Single.	Gin.
Double.	Swivel.
Treble.	Hanging.
Clump.	Fly.
Brace.	Deadeye.
Shoulder.	Fairleader.
Fiddle.	Swivels.
Secret.	Jeer block.
Cat.	Top block.
Heart.	Topgallant top block.
Fish.	Cheek block.
Patent.	Dasher block.
Sister.	Euphroe.
Snatch.	Jewel block.
Iron.	Block and block.

21.

PARTS OF A BLOCK.

Shell.	Top.
Sheave.	Bottom.
Bouching.	Swallow.
Pin.	Score.

ANCHORS AND CHAINS.

22. The nomenclature of anchors and chains is shown in Plate VII.

Learn the answers to the following questions:

GROUND TACKLE.

23. What is meant by ground tackle?
 Name the principal parts of an anchor.
 What are sheet anchors, and where carried?
 What are stream anchors, and where carried?
 What are kedje anchors, and where carried?
 What is the length of a chain cable?



OPEN LINK



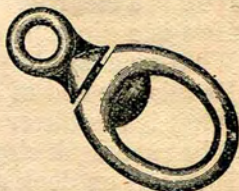
SHACKLE



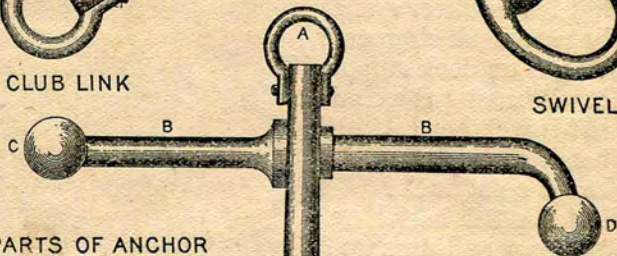
STUD LINK



CLUB LINK



SWIVEL



PARTS OF ANCHOR

- A Jew's Harp or Ring
- B Stock
- C Fixed Ball
- D Movable Ball
- E Shank
- F Fluke
- G Crown

Length of cable 120 fath.		
Shackles at	Swivels at	
1 Fath.	2 Fath.	
5 "	52½ "	
45 "	97½ "	
60 "		
75 "		
90 "		
105 "		

GROUND TACKLE.—Continued.

- How are swivels put on? What are they for?
How are shackles put on?
What is a "combination shackle"?
What is a "bending shackle"?
What are the open links?
What is a shot of chain?
Where is the club link?
How is a clear hawse pendant fitted?
How is a dip rope fitted?
What gear would you get up for clearing hawse?
How is the end of a chain made fast in a chain locker?
What is the bitter end?
What are deck stoppers?
How put on deck stoppers?
What is biting the chain?
What is weather biting?
What is a catfall?
What is a cat back?
What is a fish back?
How moor and unmoor?
What is a fish fall?
What is a "fish davit"?
What is "clear hawse"?
What is "foul hawse"?
What is a "mooring swivel"?
What is the use of "mooring swivel"?
How secure anchors for sea?
What is a ring stopper?
What is a shank painter?
What is the controller?
What is the compressor?
How "haul to" the compressor?
What is "bringing to" the chain.
What is "ringing up" an anchor?
Describe a sea anchor? Where is it stowed?
What are "hawse pipes"?

GROUND TACKLE.—Continued.

Where are the "chain lockers" ?

Who are the "chain tierers" ?

How do they "tier chain" ?

What is meant by "veering chain" ?

What are the cat-heads ?

How get up anchor ?

How let go anchor ?

What is the capstan ?

What is the wild cat ?

What are chain hooks ? What are they for ?

What is a "hook rope" ? What is it for ?

What is a "deck tackle" ? What is it for ?

THE COMPASS.

24. What is a compass ?

How many points in a compass ?

What are the cardinal points ?

How many degrees in a compass ?

How many degrees in a point ?

What is a lubber's point ?

"Box" the compass.

25. To "box" the compass is to name the points in regular succession, beginning at one point and ending with the same; thus commencing with north and going around *with the sun*, say :

North,
North by East,
North North-East,
North-East by North,
North-East,
North-East by East,
East North-East,
East by North,
East,
East by South,
East South-East,

South-East by East,
South-East,
South-East by South,
South South-East,
South by East,
South,
South by West,
South South-West,
South-West by South,
South-West,
South-West by West,

THE COMPASS.—Continued.

West South-West,
West by South,
West,
West by North,
West North-West,
North-West by West,

North-West,
North-West by North,
North North-West,
North by West,
North.

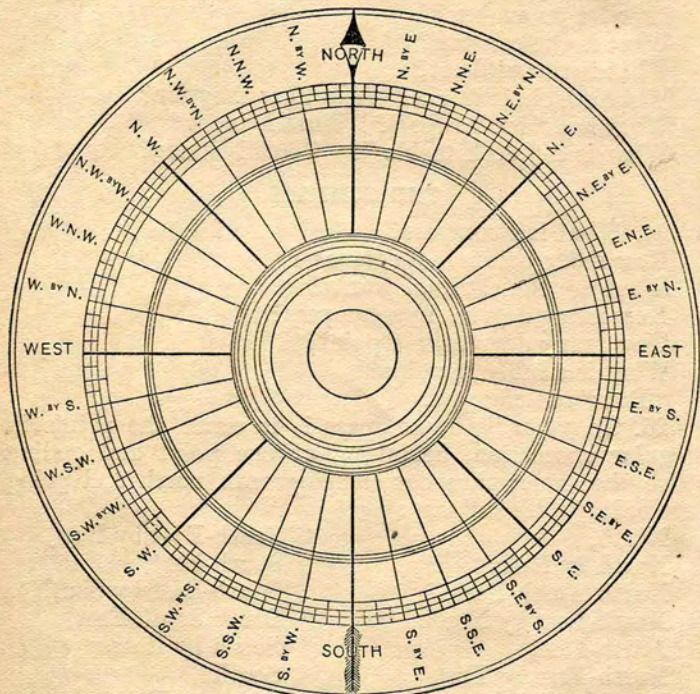


PLATE VIII.

26. Each point is divided into squares and the fractional parts are thus expressed: East South-East, a half East; West, a quarter North, etc., as follows:

THE COMPASS.—Continued.

27. NORTH.	EAST	SOUTH.	WEST.
N. $\frac{1}{4}$ E.	E. $\frac{1}{4}$ S.	S. $\frac{1}{4}$ W.	W. $\frac{1}{4}$ N.
" $\frac{1}{2}$ "	" "	" "	" "
" $\frac{3}{4}$ "	" "	" "	" "
N. by E.	E. by S.	S. by W.	W. by N.
" $\frac{1}{4}$ E.	ESE. $\frac{3}{4}$ E.	" $\frac{1}{4}$ W.	WNW. $\frac{3}{4}$ W.
" $\frac{1}{2}$ "	" "	" "	" "
" $\frac{3}{4}$ "	" $\frac{1}{4}$ "	" "	" "
NNE.	ESE.	SSW.	WNW.
" $\frac{1}{4}$ "	SE. by E. $\frac{3}{4}$ E.	" $\frac{1}{4}$ W.	NW. by W. $\frac{3}{4}$ W.
" $\frac{1}{2}$ "	" "	" "	" "
" $\frac{3}{4}$ "	" "	" "	" "
NE. by N.	SE. by E.	SW. by S.	NW. by W.
NE. $\frac{3}{4}$ N.	SE. $\frac{3}{4}$ E.	SW. $\frac{3}{4}$ S.	NW. $\frac{3}{4}$ W.
" $\frac{1}{2}$ "	" "	" "	" "
" $\frac{1}{4}$ "	" "	" "	" "
NE.	SE.	SW.	NW.
" $\frac{1}{4}$ E.	" $\frac{1}{4}$ S.	" $\frac{1}{4}$ W.	" $\frac{1}{4}$ N.
" $\frac{1}{2}$ "	" "	" "	" "
" $\frac{3}{4}$ "	" "	" "	" "
NE. by E.	SE. by S.	SW. by W.	NW. by N.
" $\frac{1}{4}$ E.	SSE. $\frac{3}{4}$ E.	" $\frac{1}{4}$ W.	NNW. $\frac{3}{4}$ W.
" $\frac{1}{2}$ "	" "	" "	" "
" $\frac{3}{4}$ "	" $\frac{1}{4}$ "	" "	" "
ENE.	SSE.	WSW.	NNW.
" $\frac{1}{4}$ E.	S. by E. $\frac{3}{4}$ E.	WSW. $\frac{1}{4}$ W.	N. by W. $\frac{3}{4}$ W.
" $\frac{1}{2}$ "	" "	" "	" "
" $\frac{3}{4}$ "	" "	" "	" "
E. by N.	S. by E.	W. by S.	N. by W.
E. $\frac{3}{4}$ N.	S. $\frac{3}{4}$ E.	W. $\frac{3}{4}$ S.	N. $\frac{3}{4}$ W.
" $\frac{1}{2}$ "	" "	" "	" "
" $\frac{1}{4}$ "	" "	" "	" "

28. A square-rigged vessel when close-hauled can approach no nearer than six points.

29. The compass is described on a card, divided in several points, and the card being fixed on a piece of steel called the *needle*, which has been touched by a loadstone, acquires the property, when resting on a pivot fixed vertically in the compass, of pointing to the north; the other

THE COMPASS.—Continued.

points will, of course, point to their respective parts of the horizon.

30. The compass has eight points in each quarter, equal to ninety degrees, making in the whole, thirty-two, equal to three hundred and sixty degrees of the horizon.

31. A square-rigged ship, when close hauled (as before mentioned), can lie no closer to the wind than six points; therefore if a ship be close-hauled on the starboard tack, and her head at north, count six points from thence to the right hand, or towards the east, and you will find the wind must be E.N.E. The wind then forms an angle with the keel of six points, sixty-seven degrees and thirty minutes.

32. The *lubber's point* is a vertical line drawn on the inside of the bowl of the compass, to correspond to the vessel's head; the point of the card coinciding with it shows the course steered. (See plate.)

33. The compass card and needle are mounted on a pivot in the bowl, and the bowl is filled with alcohol, which will not freeze. This keeps the card from wobbling or moving too quickly.

34. Magnets and iron rods are used to neutralize the effect of the steel in the ship so that the needle may always point nearly true *north*.

THE LEAD.

35. Every seaman should know how to "heave the lead."

What is a lead-line?

How many fathoms of line on a hand lead?

What are the marks?

What are the deeps?

What are the weights of hand leads?

How is a hand lead-line marked?

How tell the depth at night?

What is the length of a deep-sea lead-line?

THE LEAD.—Continued.

What are the weights of deep-sea leads?

How is the line marked?

What is a drift lead?

What is the principle of the deep-sea sounding machine?

How prepare lead and register, and how take a sounding?

36. Soundings, to ascertain the depth of water on entering or leaving a port, or in any case where there is supposed to be less than twenty fathoms of water, are taken by the hand lead, a quartermaster, seaman or ordinary seaman being stationed in the chains for the purpose; the lead weighing from seven to fourteen pounds, and the line being from twenty to thirty fathoms in length.

Both the hand and deep-sea lines are marked as follows:

At	2	fathoms	from	the	lead,	with	2	strips	of	leather.
"	3	"	"	"	"	"	3	strips	of	leather.
"	5	"	"	"	"	"	a	white	rag.	
"	7	"	"	"	"	"	a	red	rag.	
"	10	"	"	"	"	"	leather	having	a	hole
										in
										it.
"	13	"	"	"	"	"	as	at	3.	
"	15	"	"	"	"	"	as	at	5.	
"	17	"	"	"	"	"	as	at	7.	
"	20	"	"	"	"	"	with	two	knots.	
"	25	"	"	"	"	"	"	one	knot.	
"	30	"	"	"	"	"	"	three	knots.	
"	35	"	"	"	"	"	"	one	knot.	
"	40	"	"	"	"	"	"	four	knots,	etc.

These are known as the "marks." The numbers omitted, as 1, 4, 6, 8, etc., are called the "deeps," and they are spoken of together as the "marks and deeps of the lead-line."

37. Soundings by the hand lead are taken while the

THE LEAD.—Continued.

vessel has headway on, the leadsman throwing the lead forward and getting the depth as the vessel passes, while the line is nearly perpendicular. He communicates the soundings obtained thus:

38. If the depth corresponds with either of the above marks, he says, "*By the mark 5 or 7.*" If the mark is a little below the surface, he says, "*Mark under water 5 or 7.*" If the depth is greater, or one-half more than any of the marks, he says, "*And a quarter,*" or "*And a half 5 or 7.*" If the depth is a quarter less, he says, "*Quarter less 5 or 7.*" If he judges by the distance between any two of the marks that the depth of water is 4, 6, 8, 9, 11, 12, 14, 16, 18, 19, or 21 fathoms, he says, "*By the deep, 4, 6,*" etc.

39. On the hand lead there are nine "marks" and eleven "deeps."

40. On going into the chains for the purpose of sounding, the leadsman should see the breast-rope properly secured; his line clear, and the end made fast. If at night, he should take the distance from the breast-rope to the water's edge; then at each cast deduct this distance from the mark at hand and give it as the true sounding.

THE LOG.

41. What is the log?

What is the chip?

What is the stray line?

What length is the stray line?

What is the length of a knot in feet?

How is a log line marked?

What is the "patent log"?

Every bluejacket in the Navy should know how to "read the patent log" as easily as he tells the time by a clock.

THE LOG.—Continued.

42. Various methods have been proposed for measuring the speed at which a ship sails; but that most in use is by the Log and Half-Minute Glass.

43. The Log is a flat piece of thin board, of a sectoral or quadrantal form, loaded on the circular side with lead sufficient to make it swim upright in water. To this is fastened a line, about 150 fathoms long, called the *log-line*, which is divided into certain spaces called *knots*, and is wound on a reel, which turns very easily. The Half-Minute Glass is of the same form as an Hour Glass, and containing such a quantity of sand as will run through the hole in its neck in half a minute of time, or twenty-eight seconds.

44. The making of the experiment to find the velocity of the ship, called *heaving the log*, which is thus performed: One man holds the reel, and another the half-minute glass; a petty officer of the watch throws the log over the ship's stern, on the lee side, and when he observes the stray line is run off (which is about 15 fathoms, this distance being usually allowed to carry the log out of the eddy of the ship's wake), and the first mark (which is generally a red rag) is gone off he cries *Turn*; the glass-holder answers, *Turn*; and watching the glass, the moment it is run out, says, *Up*. The reel being immediately stopped, the last mark run off shows the number of knots, and the distance of that mark from the reel is estimated in tenths. Then the knots and tenths together show the distance the ship has run the preceding hour if the wind has been constant. But if the wind has not been the same during the whole hour, or interval of time between heaving the log, or if there has been more sail set or handled, a proper allowance must be made.

45. In heaving the log, you must be careful to veer out the line as fast as the chip will take it; for if it be left to turn the reel itself, it will come home and deceive in

THE LOG.—Continued.

your reckoning. You must also be careful to measure the log-line pretty often, lest it stretch and deceive in the distance. Like regard must be had that the half-minute glass be just 30 or 28 seconds, otherwise no accurate account of the ship's way can be kept. The glass is much influenced by the weather, running slower in damp weather than in dry. The half-minute glass may be examined by a watch, with a second hand.

46. Both lead and log should be marked when wet.

The time-glasses in general use are 28 and 14 seconds, called, respectively, the "long" and the "short" glass.

When the *short*, (or 14 sec.) glass is used, the reading of the log must be *doubled* to obtain the speed. The *short* glass is used for speeds greater than 5 knots.

47. The Patent Log is now in constant use, especially on steamers. It should be rigged out by a spar, so as to clear the wake, and care taken to haul it in whenever the ship is stopped.

THE HELM.

48. The Helm is the mechanism for steering a vessel. It is composed of the rudder, tiller or quadrant, wheel-ropes and wheel.

What is the helm?

When you get the order "Starboard," how do you put your wheel?

What do you mean by "Steady"?

What do you mean by "Meet her"?

What is meant by "Hard aport"?

What is meant by "Steady aport"?

What is meant by "No higher"?

What is meant by "Right the helm"?

What is meant by "Ease the helm"?

What is meant by "Put the helm up"?

What is meant by "Put the helm down"?

THE HELM.—Continued.

What is meant by "Hard up" and "Hard down"?

What is meant by "Luff"?

What is meant by "Let her go off"?

What is meant by "Let her come up"?

What is the "steam steering gear"?

49. Every man who wears a bluejacket's uniform should know how to steer a boat or a ship under sail or steam. He should know all about the steering gear and should learn the "language of the wheel."

50. Learn the use or meaning of the following:

Steam steering	Scudding.
Hand steering.	Tacking; wearing.
The tiller.	Going about.
The rudder.	Aback.
The rudder post.	Missing stays.
The yoke.	Shift your helm.
Back chains.	Nothing off.
The pintles.	Nothing to the eastward;
The gudgeons.	how is your helm?
The woodlock.	Don't give her so much helm.
A jury rudder.	Weather helm.
The king spoke.	Lee helm.
The wheel ropes.	Steerage way.
Relieving tackles; use.	Stern board.
Mechanical hand-steering gear.	To bear up.
Helm amidships.	Conning a ship.
Starboard; port.	To windward.
Small helm.	To leeward.
Hard astarboard; what means of knowing?	Weather side.
Hard over.	Lee side.
Helm amidships.	On the bow.
Ease down the helm.	Wind abeam.
Helm alee.	Abaft the beam.
Running.	Wind aft.
	Wind on the quarter.
	Full and by.

THE HELM.—Continued.

Close hauled.	Going free.
Off the wind.	Boxing off.
Keep away two points.	Hauling to the wind.
Bring her up two points.	Hove to.
By the wind.	Laying to.
On a wind.	Broaching to.
Beating to windward.	

LIGHT-HOUSES.

51. Various kinds. What used for.

BUOYS.

52. State various kinds and how placed.
 What used for. Red buoys. Black buoys.
 Gas buoys; whistling and bell buoys; mid-channel buoys.
 Beacons.
 When does a buoy watch?

RUNNING LIGHTS.

53. Describe running lights; anchor lights.
 Steamer. Towing.
 Sailing vessel Pilots.

LOOKOUTS.

54. Some of the duties of a lookout have been named. A lookout should be wide awake and alert at all times. His duties are very important. He should never sit down, talk or lounge, but should keep his eyes on the horizon; and in a fog or in thick weather he should listen attentively for fog whistles, bell buoys, whistling buoys, and breakers, and report promptly if he sees or hears anything.
55. The bow or cathead lookouts should watch the running lights and report at once to the officer of the deck if the lights grow dim or go out.

THE BEARINGS
ON THE PORT SIDE
ARE DESIGNATED
IN THE SAME WAY.

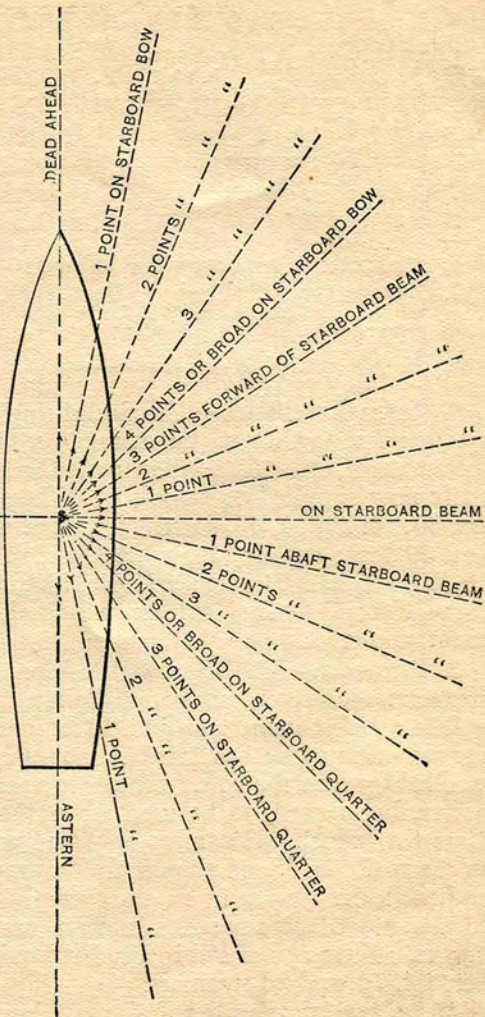


PLATE IX.

BOATS IN GENERAL.

1. Vessels of the U. S. Navy are supplied with one or more of the following classes of boats:

1. Steamers.
2. Sailing-launches.
3. Cutters.
4. Whaleboats.
5. Dinghies.
6. Punts or catamarans (or balsas).
7. Barges (supplied only to flagships).
8. Wherries (special boats).

GENERAL DESCRIPTION.

2. **General remarks.**—The size of ship's boats is indicated by their length in feet, for example a 28-foot cutter, a 36-foot steamer, etc. The following is the length in feet of the boats now supplied to vessels of different classes: Steamers, 50, 40, 36, 33, 30, and 28 feet; sailing-launches, 36, 33, and 30 feet; cutters, 30, 28, 26, and 24 feet; whaleboats, 30, 29, 28, and 24 feet; and dinghies, 20, 18, 16, and 14 feet. Special 20-foot cutters and whaleboats are supplied to torpedo craft.

3. **Steamers.**—First-class battleships usually carry three steamers of different size. In the latest ships one of these will be a picket-launch, about 50 feet long. All steamers of the regulation type are fitted to mount a light rapid-fire or machine gun in the bow. They are usually fitted with sail power, lug rigged, to be used when the boiler is removed from the launch. Steamers are fitted with rowlock-sockets in the washboard, and should always carry at least two oars and rowlocks for use in an emergency. Steamers assigned to the use of commanders-in-chief are known as steam-barges. Steamers of a ship are distinguished by their number, 1st, 2d, and 3d steamers.

4. **Sailing-launches** are large, heavy working-boats, square-sterned, sloop-rigged, and they are so named from

the fact that sail is their usual mode of propulsion. They, like steamers, are fitted to mount a light rapid-fire or machine gun in the bow. Sailing-launches are supplied with oars, and instead of rowlocks they use grommets and thole-pins. By double-banking the thwarts, considerable speed under oars may be attained. These boats are specially designed for ship's heavy work, such as carrying water or stores, large liberty-parties, carrying out anchors, weighing kedge-anchors, etc.

5. **Cutters** are double-banked, square-sterned boats, smaller than launches, pulling ten or twelve oars, according to size. They are used as running-boats and for ship's general duties and are fitted either with sunken or swivel-rowlocks. Their sailing rig is the sliding-gunter, either with or without jib. They are frequently fitted to carry a light rapid-fire or machine gun in the bow. These boats are particularly adapted to port duty of every description.

6. **Whaleboats** are double-ended and, according to size, are single- or double-banked, pulling six or twelve oars, according to size. They are used as running-boats and for ship's general duties of a lighter character than that assigned to launches and cutters. They are fitted with swivel-rowlocks. Their sailing rig is the sliding-gunter, frequently without jib. In port they are steered with a rudder, but at sea are fitted with a steering-oar passed through a crutch (or steering-rowlock) on the quarter. These boats are therefore particularly adapted for use at sea and are generally used as life-boats. Gigs are usually of the whaleboat type.

7. **Dinghies** are small handy boats, shaped like cutters, single-banked with four oars. They are used as market-boats, or for light rough work, or ship's light duties. Owing to the small crew required, they are particularly convenient for nearly any light work in port. They carry sails and are usually sprit-rigged.

8. **Barges** are for the exclusive use of flag-officers. They resemble large cutters, but have finer lines and frequently

have round sterns. They are double-banked and frequently pull fourteen oars. They are fitted with either sunken or swivel rowlocks. Their sails are sliding-gunter rig.

9. **Wherries** are light handy boats for officer's use. They can be pulled by one man.

10. **Punts** are rectangular, flat-bottomed boats, intended for painting and general cleaning around the ship's water-line. They are fitted with rowlocks on each side, but are usually propelled by sculling.

11. **Catamarans (or balsas)** are platforms secured to two hollow floats. They are used for the same purpose as punts, but are less handy. They are really carried on account of their demonstrated value in case of shipwreck. They are fitted with swivel-rowlocks and oars, but are usually sculled. Life-rafts of various designs are sometimes carried, but no regulation type has been adopted.

BOATS.

1. How is a boat lowered?

What is the use of a sea painter?

In hoisting under-way or in a tide-way, what fall should be hooked first.

How is a boat stopper passed?

What are life lines?

What is done at the command "Shove off"?

What is done when a boat is called away?

What side gives the stroke?

What is meant by "Hold water" and "Stern all"?

How is a boat steered in a heavy sea, and why?

What are muffled oars?

How are boats kept clear of the ship when riding astern?

How tow a boat alongside and keep it clear of the ship?

How are lifeboats secured, and what must they contain?

How are masts stowed in a boat?

What is the regulation rig for boats in the United States Navy?

How make sail in a boat?

How douse sail and get under way?

Explain how to tack a boat.

Why is it dangerous to use the lee oars when under sail?

Never climb the mast of a boat if anything is to be done; unstep the mast.

How do you "feather" an oar?

How "feather" when backing?

What do at command "Stand by the oars"?

What do at command "Up oars"?

What do at command "Out oars"?

What do at command "Let fall"?

What do at command "Give way together"?

What do at command "In bow," or "Trail bow"?

What do at command "Way enough"?

What do at command "Toss"?

What do at command "Oars"?

What do at command "Back starboard," "Give way port"?

How do you use a boat-hook?

2. When a boat is called away the crew should move on the *run* and man the boat as soon as possible. A blue-jacket should take pride in being a good boatman.

3. If the boat is at the boom when called away, the boat-keeper should haul her up and hold her under the ladder or pendant while the crew get in. The men should sit down on their thwarts and stand by to drop the boat down quickly as the coxswain directs.

4. If the boat is hoisted the crew should take stations for lowering, put in the plug, see the falls clear and await orders. As soon as lowered the falls should be hooked to the ship's side and the men who are on deck should haul the falls and stoppers taut and then man the boat *on the run*.

5. Be sure that you know how to *hook and unhook boat's falls, and how to pass a stopper properly*.

6. In pulling, always lay well back on your oar and pull it through the water. Do not attempt to pull with your

arms alone, but always bring the muscles of your back into play. American bluejackets have always been good oarsmen and usually win races with foreign man-of-war's men.

7. Always pull a *good strong stroke*, and pay strict attention to orders. Paddling and slouchiness in a man-of-war boat is inexcusable.

8. Never stand up in a boat if you can avoid it. In stepping and unstepping masts and making sail, not more than two or three men need stand.

9. The crew of a boat should always be in uniform and perfectly clean.

BOAT ETIQUETTE.

10. Boat-keepers at the boom should always haul their boats ahead when a boat leaves the ship or comes alongside, and they should always rise and salute officers in other boats passing near. Boat-keepers must always be attentive and never lounge or read in a boat.

11. Never talk in a boat whether you belong to the crew or are a passenger.

12. Always *get into* a boat ahead of your superior officer and *leave it after* him, unless he orders you to get out first. If you are a passenger always rise and salute when an officer enters or leaves a boat in which you are seated.

13. With the exceptions stated above, men in a boat do not salute while under way. The boat-keeper or coxswain salutes officers in other boats.

NOMENCLATURE OF BOATS.

14. Learn the names of all parts of a boat and of all its gear and fittings and the uses of each.

Coxswain's box.	Sea painter.
Keel.	Row locks.
Frames.	Gunwhale.
Stem.	Oars.
Bow.	Loom.
Stern.	Blade.

NOMENCLATURE OF BOATS.—Continued.

Sternpost.	Handle.
Strake.	Heel of mast.
Thwarts.	Step of mast.
Stern-sheets.	Main boom.
Back board.	Gooseneck.
Plug.	Sails.
Stretchers.	Head.
Rudder.	Tack.
Tiller.	Clew.
Yoke.	Leech.
Painter.	Sheet.
Halliards.	Answering pennant.
Brails.	Grapnel.
Sliding-gunter.	Gripes.
Topmast.	Kinds of boats.
Sprit-sail.	Launches.
Sprit.	Barges.
Gaff-topsail.	Cutters.
Lug-rig.	Whaleboat; lifeboats.
Boat-box.	Gigs.
Boat number.	Dinghies.
Boat recall.	Wherries.
General recall.	

BOAT CALLS.

15. Boats are usually called away by the bugle. The calls are different for the different classes of boats, but they are very easily learned and men should be attentive to them when they first go on board ship.

U. S. NAVAL CODE OF SIGNALS.

1. U. S. NAVY (WIG-WAG) CODE.

A 22	H 122	O 21	V 1222
B 2112	I 1	P 1212	W 1121
C 121	J 1122	Q 1211	X 2122
D 222	K 2121	R 211	Y 111
E 12	L 221	S 212	Z 2222
F 2221	M 1221	T 2	
G 2211	N 11	U 112	

Numerals.

1 1111	4 2221	8 2111
2 2222	5 1122	9 1221
3 1112	6 2211	0 2112
	7 1222	

Abbreviations.

a after	n not	ur your
b before	r are	w word
c can	t the	wi with
h have	u you	y yes

xx3—"numerals follow" or "numerals end."

sig. 3—signature follows.

End of a word 3	Repeat after (word)
End of a sentence 33	121.121.3.22.3. (word)
End of message 333	Repeat last word 121.121.33
Error 12.12.3	Rep. last mes. 121.121.121.333
Acknowledgment or	Move little to right 211.211.3
"I understand" 22.22.3	Move little to left . 221.221.3
Cease signaling 22.22.22.333	

THE U. S. ARMY AND NAVY (WIG-WAG) CODE.

2. This code is identical with the United States Navy Wig-wag Code as just given, except that—

a. No "Letters Call" is used for a wig-wag message, as all messages are to be spelled out. The character "1112" represents the syllable "tion."

b. The character "1111.3" means "Wait a moment" and "2212.3" means "Signal faster." The above uses

of "112," "1111," and "2212" are authorized in the United States Navy only in communicating with the United States Army.

FLAG CODE.

3. The flag code of signals is shown in Plates X and XI. Men should learn these flags and how to bend on and hoist them.

ARDOIS SYSTEM.

4. With the Ardois, signals are made at night by means of red and white electric lights at the mast head. Red is *one*, and white is *two*, and the code is the same as the wig-wag. The alphabet is easily learned by practice with the Ardois.

VERY'S SIGNALS.

5. Very's signals are made at night by firing red and green stars high in the air by means of a pistol.

SOUND SIGNALS.

6. Sound signals are made by the steam whistle, ship's bell, or by firing guns.

SIGNAL INSTRUCTION.

7. Every bluejacket should know all about signals. He should take pride in learning the alphabet as quickly as possible so that he can send or receive a message by wig-wag. Practice makes perfect.

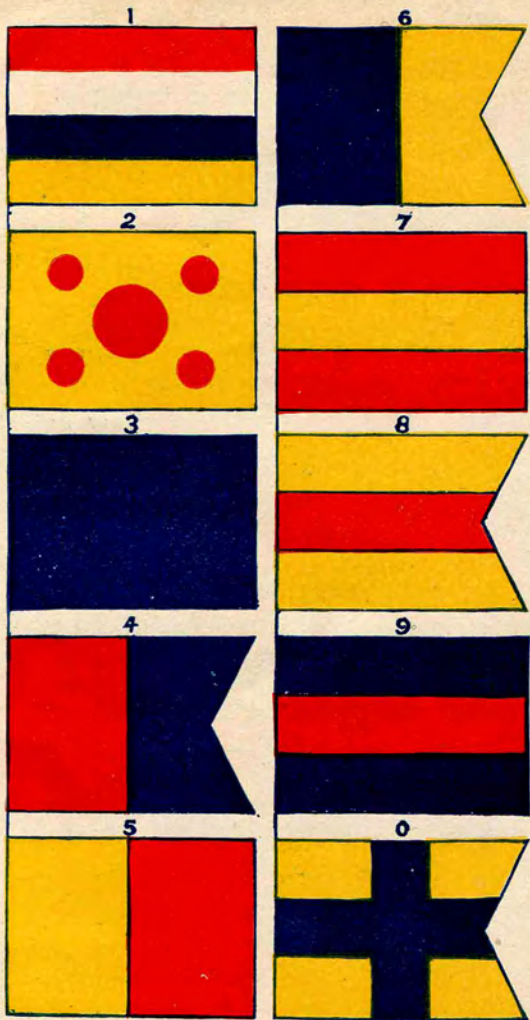


PLATE X.



1st REPEATER

2d REPEATER

3d REPEATER

RESERVE SPEED
AND MEAL

PREPARATORY

ANSWERING AND
DIVISIONAL PT.

CHURCH
PENNANT



GUNNERY
TROPHY



CONVOY AND
POSITION



INTERROGATORY



W
ANNULLING
FLAG



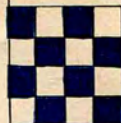
P
AFFIRMA-
TIVE
OR
YES!



K
NEGATIVE
OR
NO!



CORNET



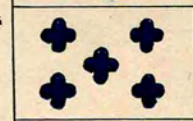
N
DISPATCH
FLAG AND
"BREAK-
DOWN"



GEN. RECALL



DANGER



GUARD
OR
GUIDE



QUARANTINE



HOSPITAL

PLATE XI.

THE TWO-ARM SEMAPHORE.

1. Signals may be transmitted by the two-arm semaphore, using either hand-flags or machine, all positions and motions with the exception of "Interval" being the same by both methods. With the machine, a third arm or "indicator" is displayed on the right and below, when in use (the left as viewed by the receiver); without this device it would be impossible to know which was the sender's right and which his left, as the machine may be used to send messages in diametrically opposite directions.

2. With hand-flags the interval "end of word" or "3" is as shown. *Two* successive motions are "end of sentence," and *three* "end of message."

3. With the machine the interval "end of word" or "3" is the machine closed, but with the indicator showing. "End of sentence" is the "chop-chop" signal, both arms being placed at the right-horizontal and then moved up and down in a cutting motion, the indicator being displayed. The "end of message" is indicated by the closing of both arms and indicator.

TO SEND A MESSAGE.

4. Face the station or ship squarely and make its Call Letter. If there is no immediate reply, wave the flags over the head, or wave the arms toward the vertical, to attract attention, making the Call Letter at frequent intervals.

5. When the station called answers, it does so by making its own Call Letter. With the machine this Call Letter is left with the display fixed until the message has been re-





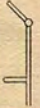







ceived and understood, which is signified by closing the machine. When the sender makes "end of message" by hand-flags, the receiver, if message is understood, extends the arms horizontally and waves the flags until the sender does the same, when both leave their stations.

6. To answer or acknowledge the receipt and understanding of a signal, by the two-arm semaphore hand-flags, make "R" and wave the flags; by the two-arm semaphore machine, turn off the Call Letter and close the machine.

















7. **Error.**—If, in the course of a signal, the sender discovers that he has made an error, he should make the characters corresponding to "E. E. interval," after which he proceeds with the signal, beginning with the word or group in which the error occurred.

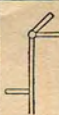















8. If, in the course of a signal, the receiver does not understand a word, character, or display, he should "break in" with the characters corresponding to "C. C. interval," which means "repeat last word"; or, to have a whole message repeated, he should make the displays corresponding to "C. C. C. interval," which signifies "repeat last message."

9. **Abbreviations** are the same as in the wig-wag code.

U. S. N A V Y C O D E							
Column 1	Column 2	Column 3	Column 4	Column 5		Column 6	Column 7
CHARACTERS	WIG WAG SYSTEM	SOUND OR FLASH	ELECTRIC NIGHT SYSTEM	TWO - ARM SEMAPHORE		VERY'S SYSTEM	SECONDARY MEANINGS
				MACHINE	HAND FLAGS		
A	22	: :	○W ○W				
B	2112	: • • :	○W ●R ●R ○W			G R R G	O (ZERO)
C	121	• : •	●R ○W ●R			G	Repeat
D	222	: : :	○W ○W ○W				
E	12	• : •	●R ○W				Error
F	2221	: : : •	○W ○W ○W ●R			G G G R	4

Column 1	Column 2	Column 3	Column 4	Column 5		Column 6	Column 7
G	2211	: : . .	○ W ○ W ● R ● R			G G R R	6
H	122	. : :	● R ○ W ○ W				
I	I	.	● R				
J	1122	. . : :	● R ● R ○ W ○ W			R R G G	5
K	2121	: . : . .	○ W ● R ○ W ● R			G R G R	Negative
L	221	: : .	○ W ○ W ● R				
M	1221	. : : . .	● R ○ W ○ W ● R			R G G R	9
N	11	. .	● R ● R				

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
O	21	⋮ •	○ W ● R			
P	1212	• ⋮ • ⋮	● R ○ W ● R ○ W			R G R G Affirmative
Q	1211	• ⋮ • •	● R ○ W ● R ● R			R G R R Interrogatory
R	211	⋮ • •	○ W ● R ● R			
S	212	⋮ • ⋮	○ W ● R ○ W			
T	2	⋮	○ W			
U	112	• • ⋮	● R ● R ○ W			
V	1222	• ⋮ ⋮ ⋮	● R ○ W ○ W ○ W			R G G G 7

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	
W	1121	•• • • •	● R ● R ○ W ● R			R R G R	Annuling
X	2122	• • • •	○ W ● R ○ W ○ W			G R G G	Numerals
Y	111	• • •	● R ● R ● R				
Z	2222	• • • •	○ W ○ W ○ W ○ W			G G G G	2
Cornet	1111	• • • •	● R ● R ● R ● R			R R R R	1
Letters	1112	• • • •	● R ● R ● R ○ W			R R R G	3
General Signals Use	2111	• • • •	○ W ● R ● R ● R			G R R R	8
Interval	2212	• • • •	○ W ○ W ● R ○ W			G G R G	Designator

MANUAL OF ARMS.



Plate 1.
Order arms.



Plate 2.
Present arms.



Plate 3.
Coming to order.



Plate 4.
Port arms.



Plate 5.
Open and close chamber.



Plate 6.
Shoulder arms.



Plate 7.
Slope arms.



Fig. 1.
Krag rifle.



Fig. 2.
Army rifle.



Plate 9.
Fix bayonet.



Plate 10.
Trail arms.



Plate 11.
Charge bayonet.



Plate 12.
Sling arms.



Plate 13.
Secure arms.



Plate 14.
Order kneeling.



Plate 15.—Lying down.



Plate 16.
Lying down without arms.



Plate 17.—Load.



Plate 18.
Adjusting the sight.



Plate 19.
Aim.



Plate 20.
To aim kneeling.



Plate 21.
To aim lying down.

PHYSICAL DRILL UNDER ARMS.

From the Manual of Physical Drill by Chaplain W. O. Holway, U. S. N.

General Rules.

68. (1) All movements in this section are 4-counts, and, except "Coming to ready," are performed two (or four) times.

(2) The exercises may be executed by command, or to music, or silently following the motions of a leader, and may be discontinued by the command HALT, when the *Order* will be resumed.



Fig. 1.
"Coming to Ready,"
First Position.
Art. 69.

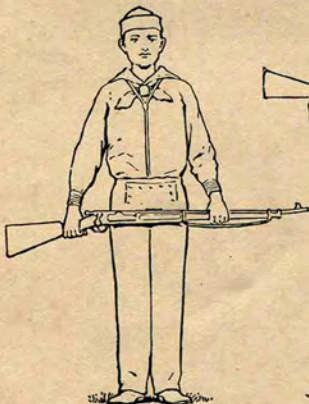


Fig. 2.
"Coming to Ready,"
Second Position.
Art. 69.

Plate 26.

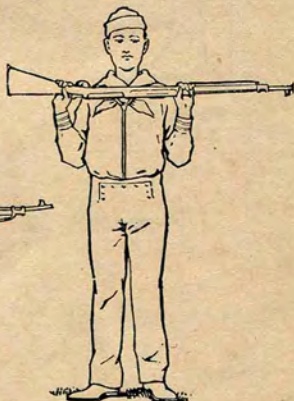


Fig. 3.
"Ready."
Art. 69.

(3) Take intervals or distance as prescribed in the drill regulations.

1. Coming to Ready.

69. Commands: *Come to ready*—1, 2, 3.

1. Raise the piece with the right hand, grasp it with the left at the height of the right shoulder, knuckles towards the body. The right hand will grasp the small of the stock, forefinger under the guard.

2. Let the piece drop in front of the body to a horizontal, slings down, keeping body erect.

3. Raise the piece horizontally to the height of the shoulders, slings up, at the same time moving the left foot to the left about twelve inches. Keep the chest out, and the shoulders well back. This position is *Ready*, and is the starting point of all the movements under arms.

2. Down and Forward.

70. SPECIAL ACTION.—The muscles of the hips, back and arms.

Commands: *Down and Forward*—1, 2, 3, 4; 1, 2, 3, 4, etc.

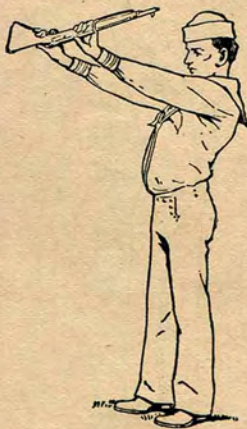


Plate 27.

Fig. 1.

"Down and Forward," End of First Count. Art. 70.

Fig. 2.

"Down and Forward," End of Third Count. Art. 70.

1. From *Ready*, lower the piece horizontally to the in-steps, keeping arms and knees (if possible) straight.
2. Back to *Ready*, chest out, elbows back.
3. Push piece horizontally forward.
4. Back to *Ready*.

3. Forward and Up.

71. SPECIAL ACTION.—The muscles of the arms, and of side walls of the chest.

Commands: *Forward and Up*.—1, 2, 3, 4; 1, 2, 3, 4.

1. From *Ready*, push out horizontally forward, as in the last exercise

2. Back to *Ready*, chest out, elbows back.
3. Push the piece to high vertical, keeping it horizontal, and expanding chest.
4. Back to *Ready*.

4. Up and Shoulders.

72. SPECIAL ACTION.—The muscles of the arms, and of the side and front walls of the chest.



Plate 28.

"Forward and Up," Third Count.
Art. 71.



Plate 29.

"Up and Shoulders," Second Count. Art. 72.

Commands: *Up and Shoulders*—1, 2, 3, 4; 1, 2, 3, 4.

1. From *Ready*, push the piece to vertical, as in last exercise.
2. Lower piece to back of shoulders, head up, elbows well back.
3. Up again to vertical.
4. Down to *Ready*.

5. Side Pushes.

73. SPECIAL ACTION.—The rotary muscles of the body and thighs; the loin muscles.

Commands: *Side Pushes*—1, 2, 3, 4; 1, 2, 3, 4.

1. From *Ready*, push the piece horizontally to right side.

twisting the body, keeping the eyes on the piece, but keeping the heels firmly on deck.

2. Back to *Ready*, chest out, elbows back.
3. Push the piece to the left side.
4. Back to *Ready*.

6. Diagonal Lunges.

74. SPECIAL ACTION.—The muscles of the arms, back and legs.
Commands: *Diagonal Lunges*—1, 2, 3, 4; 1, 2, 3, 4.



Plate 30.
"Side Pushes," Third Count.
Art. 73.

Plate 31.
"Diagonal Lunges," First Count.
Art. 74.

1. From *Ready*, lunge diagonally to the right, about thirty-six inches, with the right leg, at the same time bringing the piece up horizontally to 45 degrees. The left foot should be flat, and the eyes directed to the piece.

2. Back to *Ready*, chest out, elbows back.
3. Lunge to the left with left leg, as above.
4. Back to *Ready*.

7. Forward Lunges.

75. SPECIAL ACTION.—The muscles of the arms and legs and the side walls of the chest.

Commands: *Forward Lunges*—1, 2, 3, 4; 1, 2, 3, 4.

1. From *Ready*, lunge directly to the front, about thirty-six inches, with right leg, at the same time raising piece horizontally to vertical, and directing the eyes to the piece. Keep left foot flat.
2. Back to *Ready*.
3. Lunge to the front with left leg, as above.
4. Back to *Ready*.

8. Front Sweeps.

76. SPECIAL ACTION.—All the principal posterior muscles of the body.



Plate 32.
"Forward Lunges," Third Count.
Art. 75.



Plate 33.
"Front Sweeps." Art. 76.

Commands: *Front Sweeps, Slow*—1, 2, 3, 4; 1, 2, 3, 4.

1. From *Ready*, raise the piece horizontally to high vertical, keeping chest well out, and emphasizing the up-stretch.
2. Lower the piece slowly in front semi-circle to insteps, keeping the arms straight and emphasizing the out-reach.
3. Raise the piece slowly in front semi-circle to vertical.
4. Down to *Ready*.

9. Overhead Twists.

77. SPECIAL ACTION.—The rotary muscles of the upper part of the body; also stimulates the venous circulation.

Commands: *Overhead Twists, Butt Forward*—1, 2, 3, 4; *Muzzle Forward*—1, 2, 3, 4.

1. From *Ready*, raise the piece overhead, at the same time twisting it till the butt points directly forward. Keep the piece horizontal.



Fig. 1.
"Overhead Twists,"
Butt Forward.
Art. 77.



Plate 34.

Fig. 2.
"Overhead Twists," Muzzle Forward.
(Side view.) Art. 77.

2. Twist the piece to the right until the muzzle points directly forward. Hold the hips firmly forward, confining the movement to the upper part of the body.

3. Twist back till the butt points directly forward.

4. Lower the piece to *Ready*.

1. From *Ready*, raise the piece overhead, at the same time twisting it till the muzzle points directly forward.

2. Twist the piece to the left until the butt points directly forward.
3. Twist back until the muzzle points forward.
4. Lower the piece to *Ready*.

10. Side Twists.

78. SPECIAL ACTION.—The muscles of the sides, loins and small of the back.

Commands: *Side Twists*—1, 2, 3, 4; 1, 2, 3, 4.

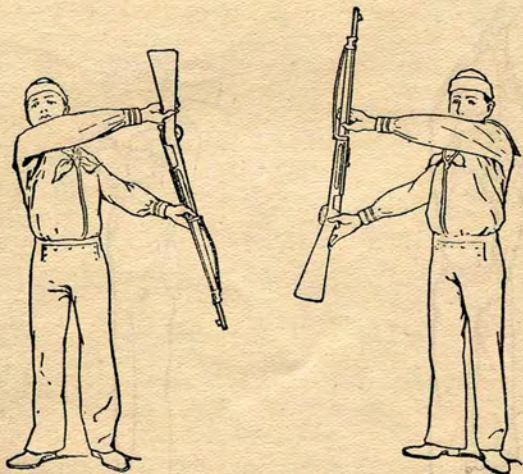


Plate 35.

Fig. 1.
"Side Twists," Second Count.
Art. 78.

Fig. 2.
"Side Twists," Fourth Count.
Art. 78.

1. From *Ready*, drop the piece horizontally in front to position No. 2 in *Coming to Ready*.

2. Lifting the butt up, carry the piece strongly to the left side and out, muzzle pointing directly down. Keep the hips firm.

3. Return the piece to position No. 2 in *Coming to Ready*.

4. Lifting the muzzle, carry the piece strongly to the right side and out, muzzle pointing directly up.

Repeat the exercise.

At the end of Exercise 10, come to *Order Arms*.

PHYSICAL DRILL WITHOUT ARMS.

GENERAL INSTRUCTIONS.

79. (1) It should be clearly understood that these instructions are *not simply for the purpose of providing "exercise,"* that is, an amount of physical exertion sufficient to keep the bodily functions in good working order, since that is secured in most cases by the routine work of the ship.

(2) The primary object is *to cause every man on board ship really to exert all of his muscles daily,* in order that he may increase or maintain their development and suppleness, and to correct the most common physical defects that result from neglect of *systematic exercise.* A man in perfect health and of powerful physique may lack suppleness and erectness, and may have many imperfectly developed muscles and small lung-capacity.

(3) In order that the object of these exercises may be achieved—that all the muscles may be properly disciplined—it is absolutely essential that the exercises be carried out vigorously, so as to bring a very considerable strain upon all of the muscles involved; otherwise the desired object will not be accomplished. *It is therefore enjoined upon all officers concerned to exert themselves to prevent these exercises degenerating into perfunctory and spiritless motions, which serve no useful purpose.* To this end, division-officers and others directly concerned in this training should set an example of enthusiasm for physical development by carrying out the exercises themselves.

(4) As it is essential to success *that the interest of the men be maintained,* the exercises should not be carried out under conditions which render this impossible; for example, when the weather is so hot and sultry as to render physical exertion distressing, or when the men have been unusually fatigued by necessary work or exposure.

(5) As the object of all physical exercises on board ship is that each man be kept in the best possible physical condition, it should be an inflexible rule that *no man or petty officer will be excused on account of age, obesity, or any other reason, except*

temporarily when authorized by the commanding officer, upon the recommendation of the medical officer; for while some men are capable of more exertion than others, all should be obliged to carry out each exercise thoroughly as far as they are able.

(6) While most of the exercises specified below are such that they cannot be performed without considerable muscular exertion, it should nevertheless be explained that their value can be much increased by exerting one set of muscles against another, thus keeping all the muscles of the body on a strain during each exercise. This requires concentration of will power and a desire on the part of each man for physical improvement.

(7) As this desire for improvement is the key-note of all physical training, each officer concerned should endeavor to create in the minds of his men a pride in their physical condition. To this end the men should be impressed with the importance of a *correct position of the trunk, chest, head and shoulders*, and it should be enjoined upon them to carry themselves erectly at all times. Stooping and rounded shoulders indicate weak back and abdominal muscles and contracted lung-space, and unless these defects are corrected it is not possible to achieve a satisfactory muscular development.

(8) For all exercises in which considerable exertion is required, as in running or in rapid marching, all authorities agree as to the importance of correct breathing. The men should therefore be instructed to use the full capacity of the lungs and to breath through the nose. If a habit is formed of taking a short, panting breath, neither the lungs nor chest will be properly developed; and those who habitually breath through the mouth will have much less endurance in running or marching, as the tongue and throat become parched; and this will sometimes be complicated by the irritation caused by dust. Like all other parts of the body, the lungs and chest can be developed only by systematic exercise carried to a reasonable point of strain, and neglect of this exercise frequently results in such a small lung-capacity as seriously to diminish the military usefulness of otherwise strong men. *The breathing exercise given below will produce the necessary development only when it is carried out conscientiously by each individual.* The benefit to be derived from it will therefore depend largely upon the success of officers in inspiring their men with a desire for improvement.

FORMATIONS AND COMMANDS.

80. (1) Except where specified to the contrary, these exercises may be executed by command, or to music, or silently, following the motions of the leader, and may be discontinued by the command, HALT, when the position of *Attention* will be resumed.

(2) Form the squad or division and take intervals or distance as prescribed in the infantry drill regulations.

(3) Throughout the following exercises, when it is directed to place *hands on hips*, the fingers will be to the front, thumbs to the rear, and elbows pressed well back. The position of *Attention* will be the same as prescribed in the infantry drill regulations.



Plate 36. Art. 80 (3).
Attention.



Plate 37. Art. 80 (3).
Hands on hips.

1st Exercise—Chest and Shoulder Muscles.

81. Commands: *Arms in Circle!* CIRCLE! HALT!

(1) At the command *Arms in Circle*, raise arms laterally until horizontal, fists closed, back of hands down.

(2) At command CIRCLE!, swing arms in a circle, first up and forward, then backward and down, arms making at all times an angle of 45 degrees with the position assumed at first command, and continue until the command *Halt*. Head and eyes to the front, chin in, body erect, shoulders square, chest out.

2d Exercise—Heart, Lungs, and Breathing Muscles.

82. Commands: *Breathing!* 1, 2, 3, HALT!

At the command *Breathing*, take position *hands on hips*.

(1) Draw the breath in slowly and regularly through the nose until the lungs are completely inflated, at the same time raising the chest as high as possible.

2. Hold the breath, relaxing the muscles that raise the chest and exert a downward pressure.

3. Allow the breath slowly to escape through the nose.

Repeat the exercise as often as may be necessary.

HALT! resume *Attention*.



Plate 38. Art. 81.
Arms in circle.
1st position.

The intervals of time occupied in inhaling, holding and exhaling the breath, will be varied to correspond with the development which the men have reached.

3d Exercise—Back, Buttock, Hip and Abdominal Muscles.

83. Commands: *Full Sweep!* 1, 2, HALT!

At command *Full Sweep*, raise arms vertically over the shoulders, fists closed, nails to the front, head erect, and eyes to the front.

1. Bend the body forward slowly until the knuckles touch the deck, legs straight, feet square on deck.

2. Raise the body slowly, arms vertical over the shoulders; then bend body back on hips as far as possible, eyes directed at the hands.

Repeat exercise as often as may be necessary.

HALT! (given from second position). Open hands and force arms obliquely back, gradually letting them fall to the sides, and resume *Attention*.



Plate 39. Art. 83.

Full sweep.
1st position.

Plate 40. Art. 83 (1).

Full sweep.
2d position.

Plate 41. Art. 83.

Full sweep.
Executing halt.

4th Exercise—Neck, Abdominal, Back and Hip Muscles.

84. Commands: *Side Stoop!* 1, 2, 3, 4, HALT!

At command *Side Stoop*, place tips of fingers on top of shoulders, elbows back, left foot carried 12 inches to left.

1. Raise the right arm vertically, and at the same time bend the body to the left, touching the deck beside the left heel with the left hand. Keep the right knee straight, head up, and eyes directed upward to the right hand.

2. Assume position as at command *Side Stoop*.

3. Raise the left arm vertically, bend to the right and touch the deck beside the right heel with the right hand, keep the left knee straight, turning head and eyes upward.

4. Resume position taken at command *Side Stoop*. Repeat this exercise as often as may be necessary. HALT! resume *Attention*.



Plate 42. Art. 84.
Side stoop.
1st position.



Plate 43. Art. 84 (1).
Side stoop.
2d position.

5th Exercise—Neck, Back and Abdominal Muscles.

85. Commands: *Body Circle!* 1, 2, 3, 4, HALT!
At command *Body Circle*, place hands on hips.



Plate 44. Art. 85 (1). Plate 45. Art. 85 (2). Plate 46. Art. 85 (3).
Body circle. Body circle. Body circle.

1. Bend body to front, elbows pressed well back, chest out, head erect, eyes to the front.
2. Bend body to right, cast eyes vertically up over left shoulder, elbows pressed well to the rear.
3. Bend body well back, chest out, head and eyes thrown back.
4. Bend body to left, eyes cast vertically up over right shoulder, elbows pressed well back.

Continue the motions as long as may be necessary.

HALT! resume *Attention*.



Plate 47. Art. 86.
Lunge. 1st position.



Plate 48. Art. 86 (1).
Lunge to the right.

6th Exercise—Leg, Thigh, Shoulder, Arm and Forearm Muscles.

86. Commands: *Lunge!* 1, 2, 3, 4, HALT!

At command *Lunge*, close fists and raise them to the nipples.

1. Extend quickly the left leg, keeping the left foot fast, lunge to the right at an angle of 45 degrees, carry the right foot 36 inches to the new front, foot grazing the deck, knee vertically over the right foot, body erect, head thrown back, left arm extended to the rear about three inches from the left thigh, left fist closed, right arm extended in the direction of the lunge, fist closed and at the height of the eye, knuckles down.

2. Resume position assumed at command *Lunge*.

3. Repeat 1, except lunge 45 degrees to the left, raising left hand, and keeping right foot fast.

4. Resume position assumed at *Lunge*.

Repeat exercise as often as may be necessary.
HALT! resume *Attention*.

7th Exercise—Leg, Thigh and Hip Muscles.

87. Commands: *Knee Stoop!* 1, 2, HALT!

At command *Knee Stoop*, place hands on hips.

1. Bend knees obliquely out, keep body vertical, rise on balls of feet, and lower body down until thighs touch heels. Keep shoulders and head back, body erect, chin in.



Plate 49. Art. 87 (1).
Knee stoop.

2. Rise slowly to position *hands on hips*.

Repeat exercise as often as may be necessary. This exercise should be executed slowly and deliberately.

HALT! resume *Attention*.

8th Exercise—Arm, Shoulder and Chest Muscles; General Exercise.

88. Commands: *Leaning Rest!* 1, 2, 3, 4, HALT!



Plate 50. Art. 88 (1).
Leaning rest.
1st position.

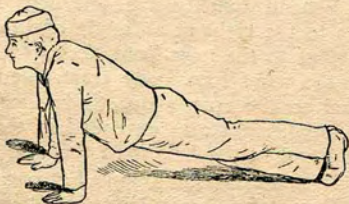


Plate 51. Art. 88 (2).
Leaning rest.
2d position.

1. Stoop and place hands on the deck outside of the feet, head up and eyes to the front.
2. Slide the feet backward to the *Leaning Rest*, weight of body resting on toes and hands, body and legs straight, head up and eyes to the front.
3. Lower body until nearly touching deck, head up, eyes to the front.



Plate 52. Art. 88 (3).
Leaning rest.
3d position.

4. Straighten arms and resume position *Leaning Rest*. Repeat 3 and 4 as often as may be necessary.
- HALT! bring feet up to hands as in position 1, then rise to *Attention*.

RUNNING EXERCISE.

89. While the foregoing will exercise all the muscles of the body, *running* is superior to all others as a general exercise. For this reason it should be carried out daily, when practicable.

9th Exercise—Heart and Lungs; Leg and Thigh Muscles; General Exercise.

90. Commands: *Running Exercise! Form for Running!*
MARCH! HALT!

(1) In whatever formation the division may be, either extended or close order, at the command *Form for Running*, the division assumes the previously determined formation for this exercise (either single or double rank) faces to the right or left, bring hands to nipples.

(2) At command MARCH! step off with left foot on a run.

(3) This exercise will not be carried out to music at the ordinary double time, but the men will simply run without any effort to maintain step or close formation, and the pace will be sufficiently rapid to force the men to run upon their toes; and to further increase the amount of muscular exertion required, hurdles will be improvised, with division-chests, capstan-bars, etc., and the men will be required to leap over them. Each division,

or squad, should be led by a pace-maker, preferably an officer. This exercise should not be carried to the point of distress in the case of any man, but as some men are much less capable of such exertion than others, due principally to lack of lung-capacity, the latter will be allowed to fall out, when distressed, long enough to catch their "wind." After running a certain number of minutes, the squad or division may be halted for a short breathing spell; then resume exercise.

(4) Some of the hurdles should be placed at such a height that all men can jump over them, and some at a height that will try the strength of the most active. The higher hurdles need not be attempted by the less active men until they feel able to clear them, which the spirit of competition will induce them to do as soon as possible.

(5) As the spar-deck plans of ships differ widely in their arrangement, it will not be possible to prescribe in detail the manner in which running exercises will be carried out, but the following general principles will be observed: (a) the number of men running on any one route will not be so great as to cause crowding; (b) as many routes as practicable will be established, and these routes may be across hatches, etc.; (c) if desirable the crew may be divided into two or more parts, preferably by divisions, one only occupying the routes while the other part, or parts, stand by to replace them. This can be done without considerable loss of time, as one section can be resting while another is running. Practical experience has shown that where men are properly instructed and led by their officers, they take a great interest in this exercise.

(6) At the command HALT! the leader continues until he reaches the assigned position for the division formation, and halts. The others close up, halt and face to the front in double or single rank as may be designated.

THE COCK FIGHT.

91. (1) The running and jumping exercises above described may be varied with advantage by the "cock fight," that is practiced in the U. S. Army.

(2) For this exercise the men of a division, or squad, are drawn up in two ranks, facing each other, and with as great an interval between ranks as possible, not exceeding six paces. When convenient, about half of each division, or squad, may be engaged in this exercise at one time, the remainder being allowed

to witness the sport while waiting to take the place of the first half, when fatigued. Neither those engaged in the exercise nor those witnessing it should be required to maintain silence.

**10th Exercise—Heart and Lungs; Leg and Thigh Muscles;
General Exercise.**

92. Commands: *Cock Fight! Right (or Left) Foot! Hop!*
HALT!

(1) At command *Cock Fight*—to be given only when men are deployed, as for bayonet exercise or setting up drills—the front rank will face about, and both ranks open to as much distance



Plate 53. Art. 92 (2).
Cock fight. Right foot.

as is available, not exceeding six paces. Then proceed as laid down.

(2) At the command *Right (or Left) Foot*, the men raise the left (or right) foot, fold the arms and keep them folded throughout the exercise. At the command *Hop*, they hop forward on the right foot and endeavor to knock any of their opponents down, or force them, by butting with the shoulder, to strike the deck with the raised foot. As soon as any man touches the deck with his raised foot, or is knocked over, or is in any way forced to use outside assistance to maintain his equilibrium, he must fall out of the game. After a minute or two of the exercise, the command **HALT!** is given and all that remain in the game return to their positions, the others falling back clear of the contestants.

(3) The command for hopping on the other foot is then given, and all hop forward and resume the exercise, which is continued until all of one side or the other have been forced to retire. When a certain amount of proficiency has been attained, contests should be organized between divisions. The more amusing the exercise can be made, the more beneficial it will be. This exercise should not be carried out when the decks are wet.

5

THE STAR-SPANGLED BANNER.

Oh, say can you see, by the dawn's early light,

What so proudly we hailed at the twilight's last gleaming?
Whose broad stripes and bright stars, through the perilous
fight,

O'er the ramparts we watched, were so gallantly streaming.
And the rockets' red glare, the bombs bursting in air,
Gave proof, through the night, that our flag was still there.

Oh, say, does that star-spangled banner yet wave
O'er the land of the free and the home of the brave?

On that shore dimly seen, thro' the mists of the deep,
Where the foe's haughty host in dread silence reposes.
What is that which the breeze, o'er the towering steep,
As it fitfully blows, now conceals, now discloses?
Now it catches the gleam of the morning's first beam,
In full glory reflected, now shines on the stream.

'Tis the star-spangled banner, oh! long may it wave
O'er the land of the free and the home of the brave.

And where is that band, who so vauntingly swore,
That the havoc of war and the battle's confusion,
A home and a country should leave us no more?
Their blood has washed out their foul foot-steps' pollution,
No refuge could save the hireling and slave,
From terror of flight or the gloom of the grave;
And the star-spangled banner in triumph doth wave
O'er the land of the free and the home of the brave.

Oh, thus be it ever when freemen shall stand
Between their loved homes and the war's desolation.
Blest with victory and peace, may the heaven-rescued land
Praise the Power that has made and preserved us a nation.
Then conquer we must, when our cause it is just,
And this be our motto, "In God is our trust;"
And the star-spangled banner in triumph shall wave
O'er the land of the free and the home of the brave!

THE RED, WHITE AND BLUE.

Oh, Columbia, the gem of the ocean,
 The home of the brave and the free.
 The shrine of each patriot's devotion,
 A world offers homage to thee;
 Thy mandates make heroes assemble,
 When Liberty's form stands in view;
 Thy banners make tyranny tremble,
 When borne by the red, white and blue,
 When borne by the red, white and blue,
 When borne by the red, white and blue,
 Thy banners make tyranny tremble,
 When borne by the red, white and blue.

When war waged its wide desolation,
 And threatened the land to deform,
 The ark then of freedom's foundation,
 Columbia, rode safe thro' the storm:
 With the garlands of victory o'er her,
 When so proudly she bore her brave crew,
 With her flag proudly floating before her,
 The boast of the red, white and blue,
 The boast of the red, white and blue,
 The boast of the red, white and blue,
 With her flag proudly floating before her,
 The boast of the red, white and blue,

The star-spangled banner bring hither,
 O'er Columbia's true sons let it wave,
 May the wreaths they have won never wither,
 Nor its stars cease to shine on the brave,
 May the service united ne'er sever
 But hold to their colors so true,
 The Army and Navy forever,
 Three cheers for the red, white and blue,
 Three cheers for the red, white and blue,
 Three cheers for the red, white and blue,
 The Army and Navy forever,
 Three cheers for the red, white and blue,