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MANUAL FOR OFFICERS

SERVING ON BOARD

U. S. CRUISING TRAINING SHIPS



WASHINGTON

1899

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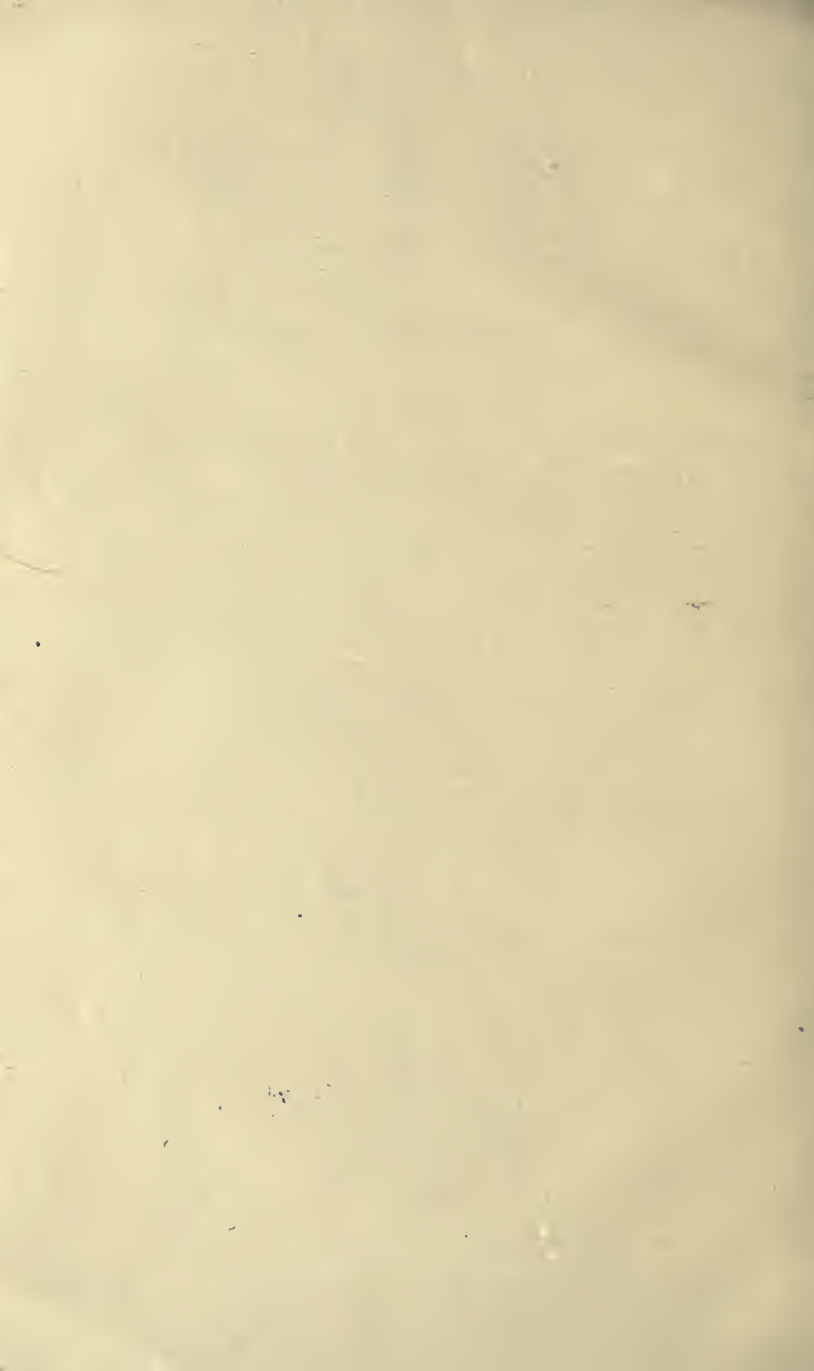
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GOVERNMENT PRINTING OFFICE.
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NAVY DEPARTMENT,
BUREAU OF NAVIGATION,
Washington, D. C., June 5, 1899.

The within manual, compiled by Commander John J. Hunker, U. S. N., modified in some details by the Bureau of Navigation, for the United States cruising training ships, is approved.

In making a cruise to the West Indies or Europe, the ports visited will be determined by the prevailing winds.

A. S. CROWNINSHIELD,
Chief of Bureau.

U. S. S. "ANNAPOLIS," THIRD RATE,
NAVY YARD, NORFOLK, VA., *May 25, 1889.*

SIR: In obedience to Bureau's letter of March 22, 1899, the following report is respectfully submitted, giving the results of my experience while in command of the training ship *Annapolis* and the methods followed in training apprentices during two winter cruises in the West Indies.

2. In accordance with the wishes of the Bureau, these notes and suggestions have been indexed and arranged in the form of a guide or manual, so that if the Bureau so desires they can be published for the information and guidance of commanding officers of training ships.

3. With regard to the itinerary, a list of the ports considered best adapted for training ships is given, with a few additional items of importance not found in the sailing directions. Lists of questions in all branches of seamanship, gunnery, signals, etc., are given, covering information and knowledge considered essential in the instruction and training of apprentices; the method of organization is described; the daily and weekly routine of drills and exercises, the best places for target practice and for landing shore parties are named; the daily bill of fare for one month in home waters and one month in foreign waters is given in detail; the subjects of discipline, hygiene, liberty, and liberty money are touched upon; the clothing outfit, punishment, and demerit schedule, and all matters relating to the training of apprentices in cruising training ships are set down as they were carried out on the *Annapolis* during the winters of 1897-98 and 1898-99.

Very respectfully,

J. J. HUNKER,
Commander, U. S. N., Commanding.

THE CHIEF OF BUREAU OF NAVIGATION,
NAVY DEPARTMENT, WASHINGTON, D. C.

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MANUAL FOR OFFICERS ON BOARD TRAINING SHIPS.

ORGANIZATION.

1. When a ship is commissioned for the training service she will be completely equipped with crew, stores, coal, etc., before receiving the apprentices on board.

2. When the boys are received on board from the training station, they should be taught the names of the sails, the lead of the ropes, and where to find them. All other instructions should give way to this. They should be kept at sail exercise until they are proficient enough to make and reduce sail promptly at sea.

3. The apprentices are evenly divided into starboard and port watches, and again into divisions. The gun crews are made up wholly of apprentices and all the guns are manned.

4. In the landing force, with the exception of the sergeants, who are petty officers, the divisions of apprentices form the sections of infantry or field artillery.

5. The crews of the boats, excepting the steam launch, are made up of apprentices selected equally from each watch and each division.

6. The apprentices mess and live together and are berthed apart from crew.

7. The crew proper is also divided into two watches and three divisions for working ship, and forms the navigator's, the powder, and the engineer divisions.

8. The chief petty officers mess together. The petty officers of the first and second class are also divided into watches and divisions for working ship. They mess and berth together in parts of the ship most convenient for the performance of their duties. The petty officers of the third class, seamen and landsmen, not cooks, are also watched and divided among the divisions for working ship. They mess and berth together. The engineer's force are also watched and divided among the divisions for working ship. They mess and berth together.

9. Numbers are given according to the watches and divisions to which the men are assigned; thus all those of the first division have numbers beginning with 1; the second division beginning with 2, as 21, 211, etc.; the third division with 3, as 31, 35, etc. The second part of a man's number denotes his number in his division; thus the figures of his watch, No. 113, would show that he was No. 13 in the first division of the starboard watch.

10. The arrangement of the apprentices into divisions is a very convenient one. It furnishes also a simple and convenient method for shifting the apprentices from one part of the ship to another.

11. Apprentices are detailed as boatswain's mates, captains of tops, coxswains, quartermasters, gunner's mates, corporals of the guard, signal boys, and orderlies. A fresh detail is made every two weeks, so that all can reap the advantages.

12. Placing boys in positions of trust and authority matures them and strengthens their character by encouraging habits of self-reliance and responsibility. At the same time their pride stimulates them to apply themselves in order to acquire the knowledge necessary to perform their duties. As boatswain's mates and captains of tops they must have a practical and intimate knowledge of all that relates to sails, rigging, etc.; as coxswains they take pride in the handling of their boats; as quartermasters they keep the columns in the log book and become familiar with reading the thermometer, barometer, patent log, compass, etc., and as gunner's mates they assist in the care and preservation of the guns and small arms and acquire much practical knowledge.

13. Each division of apprentices is divided into two messes, one in each watch. The mess crews form at the sound of the bugle on the port or lee side of the quarter-deck five minutes before meals. The gun captains dress the line, muster the boys, and march to the front and report absentees to the officer of the deck, under whose direct supervision the formation is made. The crews are marched in succession to the tables below, good behavior and order at tables being maintained by the chief master at arms and commissary yeoman. The tables are inspected by the executive officer at least once a day and habitually by the commissary yeoman; frequent inspections are also made by the commanding officer, every precaution being taken to see that the

fare is well chosen, well cooked, and well served. As the portions of each apprentice are served separately, mess gear is spread twenty minutes before meals. The crew proper are piped to meals in the usual way.

14. While in the tropics the pea coats and rubber boots should be packed in bags and stowed away for safe-keeping until the return north. Working suits over thick woolen underclothing should be habitually worn. Shoes should be worn only at Sunday inspection and while on liberty on shore, and neckerchiefs discarded while at sea. They are expensive and easily ruined; they are, moreover, in the way while working, especially when aloft. Shoes, also, are soon either lost or ruined by the salt water, and are likewise expensive. As a matter of fact, boys are much more active, especially aloft, when barefooted, and are less likely, too, to lose their hold. One good pair of shoes well cared for last a boy a whole cruise.

15. They should have, in addition to the outfit on hand when transferred to the training ship, a suit of white mustering clothes for dress. These are inexpensive and add much to their comfort in the warm weather of the tropics. This enables them to save their rather costly blue mustering clothes, a matter of much importance, considering their other wants and their small pay.

16. Frequent inspections of the bags and hammocks must be made, and clean clothes, clean blankets, and mattress covers insisted upon. Boys must also be required to keep their clothes in good repair. The bedding must be inspected and thoroughly aired once a week, the blankets hung on the line by themselves. Nothing is more important than habits of neatness and cleanliness. Boys, with a little care and attention on the part of the officers, soon become models in this respect.

17. Apprentices report on board training ships with the following outfit of clothing received at the training station. They should be required to keep this number always on hand, replacing from the paymaster's stores on board articles worn-out or lost:

One overcoat.

One pair trousers (blue).

One overshirt (blue).

Two undershirts (blue).

Two neckerchiefs.

Three working suits (white).

Two blankets (single).

Two mattress covers.

One bag.

One lanyard.

One whisk broom.	Two pairs shoes.
One pair leggings.	Two pairs socks.
One blacking brush and black- ing.	One mattress.
Sixty clothes stops.	One hammock.
One scrub brush.	Two pairs rubber boots.
Two pairs drawers.	Three bars soap.
One jersey.	One package needles.
Two watch caps.	One spool (white) thread.
Two white hats.	One spool (black) thread.
One cloth cap.	One rubber blanket.
	Three apprentice marks.

The following articles are added when they report on board the cruising training ship:

One white mustering suit.	One knife.
One suit rain clothes.	One cap ribbon.

Toward the end of the cruise a blue mustering suit is also added, usually made by the ship's tailor, to be worn when going on leave.

The moment articles of clothing are drawn they should be plainly marked with the owner's name with the stencil furnished for this purpose.

WINTER'S CRUISE.

1. The fact that the West Indies and the region for a considerable distance north and south lie entirely within the trade-wind belt renders it, in winter, an ideal one for the training service, and allows sailing vessels to visit almost any of either the Windward or Leeward islands and the more easterly ports on the Spanish Main. Vessels carry steady leading winds sailing north and south, it being only necessary to provide against falling too far to leeward, the strong trades and currents, which set to the westward throughout the whole region, making it a difficult matter to beat to windward.

2. Sailing from Newport, the first port should be Barbados; from there it is a fair wind to St. Lucia and Martinique, and standing north again from either of these ports, St. Kitts, Santa



Cruz, St. Thomas, and San Juan, P. R., all agreeable, healthy ports, with good anchorages conveniently near the shore, can be easily reached under sail. From St. Thomas vessels can stand across the Caribbean to La Guayra or Curaçoa, and from there north again to Kingston or Guantanamo. Both are in a good weatherly position from which to sail to Florida Bay, Key West, or home to Gardiner's Bay. If Trinidad is visited, sailing vessels will find it difficult to fetch to windward as far as St. Thomas on the return stretch to the northward.

3. Training ships making the winter cruise in the West Indies should start from Newport about the 1st of November. By that time the hurricane season is over and settled weather prevails south of Bermuda for the next seven or eight months.

4. Everything being in readiness, the ship should go to sea, taking advantage, if possible, of the first northwester. These usually last three or four days, and are strong enough to carry the ship well to the southward and within the northern limits of the northeast trades.

FIRST INSTRUCTION.

BAG AND HAMMOCK.

1. To be able to sling a hammock, plaiting up the ends of the nettles.
2. To hang a hammock up and secure the lashing properly.
3. To lash a hammock up and know the number of turns to take with the lashing; except for night quarters, or if the fire bell should ring.
4. To stop a piece of clothes or hammock on a girtline or clothesline.
5. To fold up a piece of clothes for stowing in a bag, and to lay out the whole kit for inspection.
6. To put in clothes stops.
7. To fold up bed blanket, mattress, and bed cover for inspection.
8. To scrub a hammock and wash clothes.
9. To use a thimble and needle and sew on a button.

SEAMANSHIP.

To pass in Seamanship, apprentices must know the names of and be able to point out the following:

PARTS OF A SHIP.

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

SHIP'S FITTINGS.

Stanchions.	Gratings.
Rudder.	Hatchways.
Rudderpost.	Combings.

Hawse holes.	Accommodation ladders.
Bucklers.	Davits.
Hawse pipes.	Hammock cloths.
Chain pipes.	Headboards.
Chain bitts.	Boom covers.
Compressors.	Shoe.
Capstan.	Bitts.
Topsail sheet bitts.	Shelf piece.
Fife rails.	Scuttles.
Pin rails.	Ringbolts.
Belaying pins.	Cleats.
Eyebolts.	Clevis bolts.
Cathead.	Companion ladders.
Fish boom or davit	Cavils.
Billboard.	Manropes.
Channels.	Wheel.
Horse block.	Wheel ropes.
Chain plates.	Yoke or tiller.
Sea steps.	

Apprentices must be able to answer the following questions:

ANCHORS.

How many kinds?	A foul anchor.
Describe and name parts of—	A buoy; its use, and how se-
Solid anchor.	cured to an anchor.
Patent anchor.	Cat and fish an anchor.
Bower anchor.	A ring stopper.
Sheet anchor.	A shank painter.
Stream anchor.	Secure an anchor for sea.
Kedge anchor.	Carry out a kedge; weigh a
Mushroom anchor.	kedge.
Sea anchor.	Kedging.
Anchor shackle and jew's-	Warping.
harp.	
Balancing link.	
Jury anchor.	

CABLES.

State how long.	How marked.
How divided and how con-	A swivel and its use.
nected.	A shackle and a pin.

A forelock.	Let go an anchor.
A club link.	Heave up an anchor.
A stud; its use.	A fish davit.
The bitter end; how secured.	A fish hook.
A stream chain.	A cat hook.
How secure a rope cable to an anchor.	A capstan; a windlass.
Chain bitts.	Moor ship; unmoor ship.
Bitt a chain cable.	An open hawse.
Range a chain cable.	A foul hawse.
Bring to the chain.	A cross.
A stopper; its use.	An elbow.
The compressor; its use; controller.	A round turn.
A deck-stopper; its use.	A round turn and an elbow.
To veer chain; surging.	Clear the hawse.
Moor ship.	Clear hawse pendant.
	A mooring swivel; its use.
	A mooring buoy; how anchored.

TIDES.

Flood tide.	Spring tides.
Ebb tide.	Neap tides.
High tide.	Weather tide.
Half tide.	Lee tide.
Low tide.	How many high tides a day?
Slack water.	Low tides?

Apprentices must be able to make and explain the following:

Eye splice.	Throat seizing.
Short splice.	Wall and crown.
Long splice.	Matthew Walker.
Grommet.	Sennit.
Cross seizing.	Racking.
Quarter or flat seizing.	Rose lashing.
Parceling.	Common whipping.
Serving.	Worming.
Sword mat.	To strap a block in all ways.

Apprentices must know the names of and the use of the following:

BLOCKS.

Single.	Treble.
Double.	Clump.

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

PARTS OF A BLOCK.

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

BENDS AND HITCHES.

Half hitch.	Bowline.
Timber hitch.	Running bowline.
Clove hitch.	Bowline on a bight.
Roband hitch.	Sheet bend.
Rolling hitch.	Reef knot.
Round turn and half hitch.	Sheepshank.
Marlin-spike hitch.	Clinch.
Blackwall hitch.	Figure of 8 knot.
Fisherman's bend.	Overhand knot.
Studding-sail halliard bend.	Carrick bend.
Catpaw.	Rope-yarn knot.
To pass a stopper.	To sling a cask on end.
To mouse a hook.	To lower a man down from aloft.
To put a strap on a rope.	To take a turn around a cleat.
To put a strap on a spar.	To put on a topgallant and royal
To rig and know the use of a parbuckle.	purchase.
To sling a cask.	To bend two hawsers together.
	To bend a hawser to an anchor.

Apprentices must know the names of and be able to point out the following:

MASTS AND YARDS.

Spars.	Step of mast.
Lower masts.	Bed of bowsprit.
Topmasts.	Bees of the bowsprit.
Topgallant and royal masts.	Saddle of the jib boom.
Trysail masts.	Goose neck of the spanker boom.
Bowsprit.	Jaws (of a boom gaff).
Jib boom.	Tie bands.
Flying jib boom.	Double topsail or topgallant yards.
Dolphin striker.	Sling bands.
Whiskers, lower booms.	Truck.
Spanker gaff.	Lightning conductor.
Trysail gaff.	Heel of mast.
Saddle or sliding chock.	Head of mast.
Hanks.	Fid hole.
Studding-sail boom.	Sheeve hole.
Spanker boom.	Fid.
Battens.	Preventer fid.
Masthead.	Lower yards.
Hounds.	Topsail yards.
Futtock bands.	Topgallant yard.
Trestletrees.	Royal yards.
Fishes.	Skysail yards.
Crosstrees.	Studding-sail yards.
Top.	Studding-sail booms.
Lubber's hole.	Slings of a yard.
Top rim.	Trusses.
Top rail.	Quarters.
Sleepers.	Spanker boom.
Bolsters.	Yard irons.
Cap.	Boom iron.
Cap shore.	Clamping or inner boom irons.
Partners.	Truss bands.
Wedges.	
Mast coat.	

Apprentices must be able to answer the following questions:

STANDING RIGGING.

How are masts supported ?	How are gaffs supported ?
How are yards supported ?	How are davits supported ?
How are booms supported ?	

Apprentices must know the names of and be able to point out the following :

Stays.	Jacob ladders.
Shrouds.	Jib guys.
Backstays.	Davit guys.
Spring stays.	Spans.
Bobstays.	Funnels.
Bowsprit shrouds.	Scotchman.
Futtock shrouds.	Martingale.
Gammoning.	Jackstays.
Lanyards for rigging.	Lifts.
Sheer poles.	Footropes.
Afterswifters.	Stirrups.
Chafing gear.	Flemish horse.
Deadeyes.	Parrel.
Masthead pendants.	Trusses.
Ratlines.	Slings for a yard.
Back ropes.	Topgallant rigging.
Jumpers.	Royal rigging.
Boom pendants.	

FITTING RIGGING.

At this instruction the boys should be taught to fit properly light standing rigging, as detailed below, and to set it up:

With an eye splice.	Topgallant and royal rigging
With a fork and two lashing eyes.	stays.
With a throat seizing on a bight.	Blocks where single straps are used.
With a cut splice.	Blocks where double straps are used.
With a horseshoe splice.	Where two single blocks are used.
Cutter stay fashion.	
With end turned up:	Rigging a lower yard.
With wooden deadeyes.	Rigging a topsail yard.
With rigging screws.	Rigging an upper yard.

SETTING UP RIGGING.

Staying lower mast.	Setting up topgallant rigging and backstays.
Setting up lower rigging.	Setting up bobstays.
Bringing to a lanyard.	Marking rigging for ratlines.
Staying a topmast.	Securing spars for sparring down.
Setting up topmast rigging	

Apprentices must know the names of leads and use of running rigging. Boys to be made to trace each rope, and not merely to commit their leads to memory.

Royal braces.	Main sheets.
Topgallant braces.	Fore bunt jigger.
Topsail braces.	Fore reef tackle.
Fore braces.	Jib lacing.
Preventer braces.	Hanks.
Main braces.	Royal clewlines.
Crossjack braces.	Topgallant clewlines.
Royal lifts.	Topsail clewlines.
Topgallant lifts.	Topsail bunt jigger.
Topsail lifts.	Topsail reef tackles.
Fore lifts.	Reef burtons.
Main lifts.	Clew jiggers.
Crossjack lifts.	Jib sheets.
Peak halliards.	Jib downhaul.
Throat halliards	Forward guy.
Spanker brails.	After guy.
Spanker sheets.	Boom topping lifts.
Trysail sheets.	Boom guys.
Spanker outhaul	Flying jib halliards.
Vangs, spanker.	Flying jib downhaul.
Peak outhaul.	Jib halliards.
Clew rope.	Fore-topmast staysail halliards.
Trysail brails.	Fore-topmast staysail sheets.
Spanker sheets.	Fore-topmast staysail downhaul.
Reeving purchases.	Clew garnets.
Royal sheets.	Fore tack.
Topgallant sheets.	Main tack.
Topsail sheets.	Royal yard rope.
Fore sheets.	Royal halliards.

Topgallant yard rope.	Leechlines.
Topgallant halliards.	Mizzen topmast staysail halliards, downhaul, and sheets.
Topgallant buntlines.	Gaff topsail.
Top bowlines.	Gaff topsail halliards.
Fore bowlines.	Gaff topsail downhaul and clewline.
Main bowlines.	Flying jib sheets.
Topsail buntlines	
Fore buntlines.	
Main buntlines.	

SAILS.

Apprentices must know the names of and be able to point out the following:

Courses.	Double topgallant sail.
Topsails.	Gaskets.
Topgallant sails.	Flying jib.
Royals.	Jib.
Storm sails.	Foretopmast staysail.
Leech.	Staysails.
Luff.	Spanker.
Foot.	Gaff topsail.
Clew.	Lower studding sail.
Head.	Foretopmast studding sail.
Peak.	Topgallant studding sail.
Neck.	Cloths.
Tack.	Roping.
Bunt.	Head.
Quarter.	Toggles.
Robands; amidship roband.	A backer.
Head earring; pass.	Sheets.
Reef earring; pass.	Bunt.
Reef point; tie.	Cringles.
Reeftackle pendant.	Eyelet holes.
Reefing jackstay.	Tabling.
Becket and toggle.	Bowline bridle.
Buntline cloth.	Buntline toggles.
Reef bands.	Reef tackle patch.
Belly bands.	Top lining.
Tack.	Goring cloth.
Double topsail.	Roach.

Mast lining.	After side of a sail.
Gluts.	Starboard side of a fore-and-aft sail.
Back cloths.	Sail covers.
Seams.	Spectacle iron.
Bolt rope.	Thimbles.
Fore side of a sail.	
Port side of a fore-and-aft sail.	

Apprentices must be able to explain the following :

Bend a topsail.	Reef a trysail.
Bend a topgallant sail.	Clew up a course.
Bend a gaff topsail.	Clew down a topsail.
Set a course.	Clew up a topgallant sail.
Set a topsail ; a topgallant sail.	Furl a topsail ; a topgallant sail.
Set the spanker ; a gaff topsail.	Furl a gaff topsail.
Set the jib.	Stow a jib.
Reef a topsail.	Kinds of canvas used in making sails?
Reef a ccourse.	

THE COMPASS AND HELM.

1. All boys are required to pass this instruction.
2. Apprentices quickly learn to box the compass if they are taught to box from north around, first by eight points, next by four, and next by two. By practicing this method they learn that the quadrants are alike in the arrangement of the points and promptly recognize the principle upon which the card is marked. It requires a much longer time to learn the points by heart, and they are more easily forgotten.
3. They should also be taught the connection between bearings by compass and bow, beam, and quarter bearings. Diagrams on the blackboards and compass cards large enough to permit a boy to stand in the center and mark the bearings and courses are valuable aids to instruction.
4. Under the supervision of the officer of the deck and the quartermaster on watch, the steering should be done entirely by apprentices; during bad weather and when in narrow channels they should be relieved by seamen. The constant practice teaches them how to steer and how to read the compass.
5. Instruction must be persevered in until all the boys are good helmsmen and thoroughly familiar with the compass.

6. The questions in seamanship, gunnery, signals, compass, helm, etc., should be typewritten and posted in the bulletin-boards a day or two in advance, to encourage the apprentices to study and prepare for recitation and instruction.

Apprentices must be able to answer the following questions:

The Compass.

The principal parts.

Gymbals; use of.

A liquid compass.

State how many points.

How many half points.

How many degrees.

The four cardinal points.

The four next most prominent.

The eight 3-letter points; how the above are situated with reference to the cardinal points.

How many points from North to NE.; to NW.; to East; to West; to SE.; to SW.

How many points in a quadrant; in a half circle.

The points opposite to WNW.; S. $\frac{3}{4}$ E.; E. $\frac{1}{2}$ N.; WNW. $\frac{1}{4}$ W., etc.

Which is correct, ENE. $\frac{1}{2}$ N., or NE. by E. $\frac{1}{2}$ E.; E. by N. $\frac{1}{4}$ E., or E. $\frac{3}{4}$ N.?

Box compass from North to East; from West to South; by points; by half points.

Explain what is meant by a compass bearing.

State how many points from the ship's head to the bow; to the beam; to the quarter; to right astern; to a point forward of the beam; to three points abaft the beam; to two and one-half points on the quarter; from starboard tack to port tack; a full-rigged ship, how many points?

From port tack to wind on port beam, how many?

From port tack to wind on port quarter, how many?

From port tack to wind aft, how many?

A lighthouse is reported bearing SE., broad on starboard quarter; how does the ship head?

The standard compass.

The binnacle.

The lubbers line.
 Variation and deviation.
 What is a magnet?
 How find north star?

Apprentices must be able to answer the following questions:

The Helm.

Steam steering.	Shift your helm.
Hand steering.	No higher.
The helm.	Luff; let her go off.
The tiller.	Nothing off.
The rudder; material.	Nothing to the eastward; how is your helm?
The rudder post.	Don't give her so much helm.
The yoke.	Weather helm.
Back chains.	Lee helm.
The pintles.	Griping.
The gudgeons.	Steerage way.
The woodlock.	Stern board.
A jury rudder.	To bear up.
The king spoke.	Conning a ship.
The wheel ropes.	To windward.
Relieving tackles; use.	To leeward.
Mechanical hand-steering gear.	Weather side.
Helm amidships.	Lee side.
Starboard; port.	On the bow.
Steady a starboard.	Wind abeam.
Small helm.	Abaft the beam.
Hard a starboard; what means of knowing?	Wind aft.
Helm; hard over.	Wind on the quarter.
Ease the helm.	Full and by.
Meet her.	Close hauled.
Steady.	Off the wind.
Right the helm.	Keep away two points.
Helm amidships.	Bring her up two points.
Ease down the helm.	By the wind.
Put your helm up.	On a wind.
Hard up; hard down.	Beating to windward.
Helm alee.	Going free.

Running.	Boxing off.
Scudding.	Hauling to the wind.
Tacking; wearing.	Hove to.
Going about.	Laying to.
Aback.	Broaching to.
Missing stays.	

LEAD AND LINE.

1. Boys are to be taught to heave the lead, using either hand; how to hold the line while heaving right or left, and how to haul it in.

2. When leadsmen are sent to the chains, one side should be always manned by apprentices. Placing dependence upon them flatters their self-respect, the surest way to a boy's heart, and leads them to make the greatest possible efforts to excel.

3. In port the practice of heaving the lead from the boats should form part of the regular routine.

4. A sand bag, weighing about 5 pounds, should be used at first; later a regulation 9-pound hand lead may be substituted. Boys that are strong enough soon become fair leadsmen, most of them being able to pass out the fourth month of the cruise.

Apprentices must be able to answer the following questions:

Lead and Line.

Leads; how secured to line?	Toggle; aprons.
Weights.	Soundings; how called? How
Lead line; length; how marked?	determined at night?
Marks; how defined?	How report them when bottom
Deeps; how defined?	is not found?

Deep-sea Lead and Line.

Length; how marked?	How used?
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Thompson's Patent Lead.

Describe.	How used?
Leads; how armed?	Drift lead.

Log.

Reel.	How marked?
Chip; plug and socket.	Stray line; how used?
Glasses; long and short.	Patent; taffrail; log; describe.
Line; length.	Log book.

BOATS.

1. Apprentices should be carefully taught how to pull, sail, steer, hook on, and handle boats in all conditions of the weather. The pulling boats being manned and taken care of by the boys alone, the continuous practice they receive in pulling and sailing the running boats in port and at boat exercise soon converts them into expert boatmen.

2. Each member of the crew should in turn perform the duties of coxswain, and all be required to tack, wear, etc., and bring the boats alongside under sail and oars.

3. Boat racing affords excellent opportunities for instruction. When the boys are able to handle the oars and sail properly, it should be practiced under the supervision of the boat officers whenever possible.

4. Boat crews under sail should never stand except to step the masts; the sheets, halyards, and brails to be worked while sitting in the thwarts or from the bottom of the boat. Each boy is to be stationed and taught to do his own work first and to assist others afterwards. No boy is to sit or stand on the gunwale at any time.

5. The running boats' crews should be particularly neat and clean in appearance. The officer of the deck should inspect them in the gangway after exercise at quarters and correct any faults in this respect.

Boat Instruction.

Up oars.	Why feather oars?
Shove off; get in fenders.	Boat sailing:
Let fall.	Men-of-war boats; different
Give way together.	rigs.
To get out bow oars.	Sloop rig; sliding gunter rig.
Lay on oars.	Lug sails; sprit sails.
To boat-bow oars.	Step the masts.
To toss and boat oars.	Shove off; make sail.
To trail oars.	Shorten sail; reef.
To back and hold water.	Tack.
Sculling.	Wear.
To point the oars.	Heave to.
To salute.	Go alongside.

Apprentices must explain the following:

A carvel-built boat.	Kinds of boats.
A clincker-built boat.	Launches.
A diagonal-built boat.	Barges.
Single and double banked boats.	Cutters.
Oars; material.	Whaleboat; lifeboats.
Steering oar.	Gigs.
The different parts of an oar.	Dingies.
What are the necessary fittings of a boat?	

Parts of a Boat.

The gunwale.	Step of mast.
The thwarts.	Crutches.
The rising.	Breaker.
The stern sheets.	Plug.
The fore sheets.	Painter.
Coxswain box.	Lazy painter.
Back board.	Sea painter.
Bottom board.	Anchor.
Rudder.	Grapnel.
Rudder rope.	Falls.
Tiller.	Gripes.
Yoke.	Steadying lines.
Yoke lines.	Patent detaching apparatus; ob- ject?
Rowlocks.	
Stretchers.	

Apprentices must be able to answer the following questions:

LIGHT-HOUSES.

Various kinds.	What used for.
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BUOYS.

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

RUNNING LIGHTS.

Describe running lights; an- chor lights.	Sailing vessel.
Steamer.	Towing.
	Pilots.

FOG SIGNALS.

Steamer under way.	Sailing vessel under way.
Steamer at anchor.	Sailing vessel at anchor.

RULES OF THE ROAD.

Two steamers directly approaching.	One vessel overhauling another; which gives way?
Two sailing vessels directly approaching.	Steamer and sailing vessel approaching; which gives way?
Steamer and sailing vessel directly approaching.	Two sailing vessels crossing. Whistles—port; starboard.

 ORDNANCE AND GUNNERY.

1. As ordnance is one of the most important branches in the training of a naval apprentice, comprehending as it does an intimate knowledge of every description of guns, mounts and appliances, of small arms, ammunition and magazines, careful instruction, both theoretical and practical, should be continued unremittingly until the end of the cruise.

2. Every boy should be taught to assemble and disassemble all kinds of breech mechanism, both in great guns and small arms; how to substitute electric for percussion firing apparatus; and to replace broken firing pins, springs, and extractors. They should be required to do this individually and without assistance until all are perfectly familiar with every detail.

3. The recoil cylinders should be examined, the guns raised, and all parts of the mount be frequently overhauled for their benefit, and they should be especially instructed in the care and preservation of guns, mounts, small arms, tools, and appliances.

4. They should be made familiar with all sorts of ammunition, powder, primers, fuses, etc., and should make frequent visits to the magazines and shell rooms to learn practically how ammunition is stowed and flood cocks fitted.

5. Every opportunity for subcaliber, rifle, and revolver practice should be taken advantage of; and in port, where circumstances permit, a permanent target should be anchored near the ship so that target practice can be carried on daily if possible.

6. In firing at target with great guns, field guns, and small arms, the practice should be as deliberate and as painstaking as possible, no shots to be wasted, and the principle of pointing carefully and clearly set forth. The apprentices should be well instructed in aiming drill, gallery rifle practice, and subcaliber practice before engaging in target practice with great guns, the allowance of ammunition at great gun practice to be divided equally among the boys. No opportunities for quarterly practice with rifles and revolvers for prizes should be missed.

7. Boys are apt to flinch at first when pulling the lock string or the trigger. This tendency must be overcome before any skill in marksmanship can be expected.

8. As a rule, apprentices show great interest in ordnance and gunnery and quickly respond to instruction. They never tire of target practice, and it is a good rule to preserve and publish on the bulletin boards the individual scores made from week to week in firing with the gallery rifle. The scores at target practice with small arms, on shore, should be published also. This helps to arouse a spirit of emulation among the boys; it deepens and increases their interest and furnishes a basis for comparison and improvement.

9. Boys are proverbially mischievous and destructive, and for this reason the officers in charge of firing parties on shore should keep a watchful eye upon the rifles, revolvers, and ammunition used in individual target practice. This can be best managed by taking a limited number of rifles and revolvers with the party and keeping those out of the hands of the boys except when in actual use.

10. Boys should not have been considered as having passed in Ordnance until they can make a score of 36 with the rifle and revolver—the rifle at 300 yards and the revolver at 30 yards—and 36 with gallery rifle at 20 yards.

11. In Ordnance as well as in Seamanship apprentices that are well advanced should be to a greater or less degree exempted from instruction, so that more time can be given to those that are backward.

12. If promptness, thoroughness, and absolute precision are insisted upon from the start, proficiency in drills and exercises will soon follow and the task of the instructor will be a pleasant one. Carelessness, inattention, or slipshod methods should not

be tolerated for a moment. It has been found that a little judicious punishment has a marked effect in stimulating the ignorant, the lazy, and the indifferent boys. Pressure of this kind rarely fails to awaken them to the necessity for improving their knowledge and cultivating their opportunities. Boys will work hard for an officer who takes an individual interest in their tasks and pleasures, and the best results have been obtained by officers who combine firmness and resolution with gentleness and patience.

13. It would be well, toward the end of the cruise, to provide the apprentices with handbooks on gunnery. They should be simple in language and detail, but modern and up to date. Radford's Handbook in Gunnery would answer the purpose.

14. The following questions cover the most essential details of Ordnance and Gunnery; sections of them should be published from day to day in the bulletin boards as lessons to be prepared. To pass in Ordnance, apprentices should be required to answer these questions at the end of the cruise.

GUNNERY.

To pass in Gunnery, apprentices must be able to answer the following questions:

State the general principle on which guns are constructed.

Sizes of guns used in the United States Navy, B. L. R. and R. F. guns.

Material used in building guns.

What is a R. F. gun?

What is fixed ammunition?

What is the tube; jacket; hoops?

In what part is the breech plug?

Give name and sizes of guns on board this ship.

How are they fired?

Why are guns rifled?

What takes in the rifling?

What is the ratio of weight of charge and projectiles?

What is meant by subcaliber target practice?

What is meant by the caliber of a gun?

What is meant by the drift of a rifle projectile? How allowed for in sighting?

Steaming at high speed, are guns pointed directly at the target? If not, what allowance is made for change of position?

4-Inch R. F. Guns.

Name of mount.

What kind of sight is used ?

Set sights for different ranges.

What sight is used in misty weather ?

Where must target be in telescope when gun is properly trained and elevated ?

Replace firing pin in electric attachment.

Replace firing pin in percussion attachment.

Take out and replace extractor.

Take out breech plug, combined collar and tray, for overhauling, and replace it.

Take out training gear for overhauling and replace it.

Take out elevating gear for overhauling and replace it.

In getting alongside of dock or another ship, how rig in 4-inch gun ? (Describe method used in this ship.)

How raise gun for overhauling rollers ?

How fill recoil cylinders ?

How empty recoil cylinders ?

How take out and replace recoil springs in cylinders ?

What are different causes to which a missfire may be due when using electric firing attachment and ammunition ?

How test firing battery and attachment ?

Shift from electric to percussion firing attachment, and vice versa.

If extractor breaks, how extract cartridge case ?

Describe hand extractor.

After target practice, how is gun cleaned ?

What is done with empty cartridge cases after target practice ?

How many men are stationed at a 4-inch R. F. gun ?

What are their titles, and describe in general their duties ?

What kinds of oil are used for cleaning and lubricating purposes ?

In loading, what precaution should the shell man take in entering the cartridge ?

What is a tourniquet, and how apply it ? In the absence of a tourniquet, what would you use ?

If telescopic sight becomes disabled, how sight the gun ?



Main Battery, 4-inch R. F. Guns.

Weight of gun; how made and of what metal?

Principal parts of gun:

Tube.	Grooves.
Jacket.	Lands.
Breech.	Number of grooves.
Mount.	Number of lands.
Recoil band.	

How are these guns secured for sea?

What is a cleaning brush? A hand extractor? A sponge brush?

Describe a tompon.

NOMENCLATURE.

Breech.

Plug.	Translating arm pin.
Face plate.	Hinge pin.
Combined collar and tray.	Tray latch.
Hand lever.	Tray catch.
Rotating rack.	Extractor.
Hand grasp.	Extractor keeper screw.
Translating arm.	Extractor lug.

Electric firing case.

Case.	Connecting arm.
Firing pin.	Connecting-arm insulator.
Firing-pin insulator.	

Percussion firing case.

Trigger.	Firing pin.
Trigger bracket.	Firing-pin spring.
Trigger spring.	Sleeve for firing pin.
Releaser.	Firing-pin guard.
Releaser spring.	Cocking lever.

Training mechanism.

Training rack.	Training wheels.
Training shaft.	Conical rollers.
Training worm.	Elevating gear.

Elevating gear.

Elevating arc.	Elevating spring.
Elevating shaft.	Elevating wheel.
Elevating worm.	

Recoil mechanism.

Cylinders	Buffer springs.
Piston.	Recoil springs.
Cylinder heads.	Counter-recoil springs.
Stuffing boxes.	Glycerin and how used in cyl-
Glands.	inders.

Mount.

Saddle.	Pivot.
Sleeve.	Pivot nut.

AMMUNITION.

How many kinds of ammunition? Describe each.

Weight of charge.

Weight of projectile.

Weight of fixed ammunition.

Weight of bursting charge.

Cartridge case and primer.

Describe a percussion primer and an electric primer.

How distinguish the different kinds of ammunition when stowed in magazine?

When is it desirable to use shrapnell? When common shell? When A. P. shell?

What kind of fuze is used in common shell?

What kind of fuze is used in shrapnell? How set it?

What kind of a point has the A. P. shell?

What is a bursting charge?

What is the compression band?

Powder.

How many kinds and general composition of all powder?

Describe the following:

Brown prismatic.

Priming powder.

Smokeless powder.

Meal powder.

Rifle powder.

Gun cotton.

What kind of powder is used in the 4-inch, 6-pounder, and 1-pounder ?

What are the advantages of smokeless powder ?

What is meant by a full charge ? By a reduced charge ?

What kind is used in R. F. guns ?

Sights.

Describe telescopic and ordinary sights.

Ranges.

What is point-blank and extreme range on 4-inch R. F. guns, in yards ?

What is point-blank and extreme range on 6-pounder D. S. guns, in yards ?

What is point-blank and extreme range on 1-pounder H. guns, in yards ?

Magazines.

Describe a magazine.

How is 4-inch ammunition stowed and boxed ?

How is 6-pounder ammunition stowed and boxed ?

How is 1-pounder ammunition stowed and boxed ?

How are magazines lighted ? How ventilated ?

What is a flood cock ?

6-Pounder D. S. Guns.

How are the recoil cylinders filled ?

What kind of sight is used ?

What is the sliding leaf, and how use it ?

What is a drill washer, and what is its use ?

Does the 6-pounder A. P. shell have a fuse and bursting charge ?

What kind of fuse is used in the 6-pounder ?

Can the gun be brought to a full or half cock without opening or closing the breech, and what advantage is this ?

Assemble and disassemble breech mechanism.

Describe an electric firing attachment.

Describe a percussion firing attachment.

State caliber of gun.

Weight of gun (without shoulder bar).

Twist of rifling.
 Number of grooves.
 Lands.

NOMENCLATURE.

Breech block.	Main cam.
Main bolt.	Lever-locking piece.
Operating lever.	Firing pin.
Guide bolts.	Extractors.

AMMUNITION.

How many kinds of ammunition? Describe each.
 State weight of charge.
 Weight of projectile; different kinds.
 Weight of complete rounds.
 Weight of bursting charge.

1-Pounder Hotchkiss Guns.

State caliber of gun.	Number of grooves.
Weight of gun (without shoulder bar).	Lands.

NOMENCLATURE.

Breech plug.	Cocking cam.
Extractors.	Stop bolt.
Main spring.	Sear spring.
Firing pin.	Face plate.

AMMUNITION.

How many kinds of ammunition?	Weight of projectile.
Describe each.	Weight of complete round.
Give weight of charge.	Weight of bursting charge.

What is meant by Mark I, Mark II, Mark III, Mark IV on the guns?

Assemble and disassemble breech mechanism.

Empty recoil cylinder, and then fill it.

Set the sight for various ranges.

What becomes of the empty cartridge cases after firing?

- What is a machine gun? Kinds.
 What is the Colt's automatic gun?
 What kind of ammunition does it use?
 What is a Gatling gun?
 What kind of ammunition does it use?

U. S. Navy Rifle.

- Describe U. S. Navy rifle, model 1895.
 What is the caliber?
 What kind of powder is used?
 Take out and replace extractor.
 Take out and replace firing pin.
 Load clip of cartridges.
 Lock firing pin so that piece will not fire.
 Unload clip of cartridges.
 How use piece for rapid fire?
 Set sight for various ranges.
 Shift sling for "sling arms."
 Where is the cleaning cord kept and how used?
 What are the following parts of the U. S. Navy rifle:
- | | |
|----------------------|------------------------|
| Stock. | Front-sight tip. |
| Barrel. | Lower band. |
| Receiver. | Main spring. |
| Rear sight. | Rear-sight leaf. |
| Bayonet. | Sear. |
| Sling. | Sear spring. |
| Barrel cover (wood). | Breech mechanism. |
| Bolt. | Trigger mechanism. |
| Bolt stop. | Magazine mechanism. |
| Bolt release. | Sling swivel. |
| Cam lever. | Sling strap. |
| Cam-lever handle. | Stacking swivel. |
| Clip (loading). | Trigger. |
| Clip guide. | Trigger guard. |
| Extractor. | Upper hand. |
| Extractor spring. | Bayonet blade. |
| Elevator spring. | Bayonet guard. |
| Firing pin. | Bayonet scabbard. |
| Firing-pin collar. | Bayonet-scabbard frog. |
| Firing-pin lock. | |

How many grooves of rifling?
 How many lands?
 What are lands?
 How many twists?
 Number of different parts of the gun complete.
 Weight of gun with bayonet fixed.

AMMUNITION.

Number of pockets, for 3 clips each, in belt.
 Weight of loaded belt.

U. S. Navy Revolver.

What is the name?
 What is the caliber?
 How many cartridges does it hold?
 What is the pack?
 Load and unload piece.
 Piece being cocked, how unload?

SIGNALS.

1. All boys are required to pass in this instruction.
2. They must be able to recognize the flags and pennants used in the General Signal Book and know how to use them; how to signal, using the International Code, and how to send and receive messages by the Army and Navy Code, using either flag, torch, hand lantern, steam whistle, bell, or fog horn. They should be taught also how signaling is done by the Ardois system.
3. One of the advantages of cruising in company with other training ships is the opportunity it affords for practice in all kinds of signaling.
4. Colored diagrams of the signal flags and pennants should be prepared for the benefit of the apprentices.
5. Practice in signaling, especially by the Army and Navy Code, must be persevered in from the beginning to the end of the cruise.

Apprentices must answer the following questions:

GENERAL SIGNAL CODE.

How are signals made?

How many flags?

How many pennants?

How are general signals made by day? By night?

How are signals made by telegraphic code?

Boat code?

How are signals made by Army and Navy Code? Cipher code?

How are signals made by International Code?

FLAGS AND PENNANTS.

Answering pennant.	Boat recalls.
Preparatory pennant.	Cornet.
Interrogatory pennant.	Telegraph flag.
Numeral pennant.	Geographical flag.
Affirmative pennant.	Quarantine flag.
Negative pennant.	Powder flag.
Position pennant.	Pilot flag.
Distinguishing pennant.	Danger flag.
Meal pennant.	Convoy or guard flag.
Church pennant.	Flag of truce.
Annulling flag.	General Signal 1111; how made.
Compass flag.	General Signal 1222; how made.
General recall.	Speed indicators.

Where are the following flags hoisted:

President's flag.	Narrow pennant.
Flag of the Secretary of the Navy.	National flag.
Flag of the Assistant Secretary of the Navy.	Union jack.
Admiral's flag.	Battalion flag and guidon.
Vice-admiral's flag.	Revenue flag.
Rear-admiral's flag.	Light-house service flag.
Senior officer's flag.	Flag at half-mast.
	Union down.

LIGHTS.

Signal.	Anchor
Running.	Towing.

SAIL AND SPAR EXERCISE.

1. When all hands are called to exercise with sails and spars, the boys stationed aloft should fall-in facing outboard, abreast the rigging, topgallant-yard men outboard, topmen next, and the lower-yard men inside of all. In this way the boys are kept well in hand and the tendency to straggle while laying aloft is prevented.

2. During sail exercises the captains of tops and light-yard men alone will remain aloft. At all times, except during the progress of an evolution, these men will remain in the tops inside of the topmast rigging. The time of completion of an evolution will not be recorded while men are above tops. Topgallant sail must be kept bent with topsail and courses. When light yards are crossed with their sails, the gear must be bent; and when in the rigging the clews must be kept out and stopped to quarter-block eyebolts. Light sails will be bent and unbent on deck, swaying the yards out and in the rigging together.

3. There will be no "ready men" for general exercises with spars or sails, except in bending sails.

4. When an evolution is completed the men will lay down from aloft at once and together, without reference to the flagship or senior officer's vessel.

5. No men will be allowed aloft during daylight without signal after 8 a. m.

6. The position pennant hoisted over a vessel's distinguishing pennant will be a notification that that vessel is not properly performing the evolution and to conform to the motions of the flagship or senior officer's vessel.

In all exercise, of whatever character, thoroughness of execution and maneuver is desired rather than the mere making of time. Time amounts to nothing as an element of efficiency unless backed up by thoroughness of execution in every detail that goes to make a ship of war an efficient fighting machine.

7. The following routine in exercising spars and sails will be, ordinarily, carried out; but should the signal of execution alone be hoisted, the evolution will be performed without regard to the flagship or the senior officer's vessel:

TO LOOSE SAILS TO A BOWLINE.

When preparatory signal is understood, call all hands.

When preparatory signal is hauled down, captains of tops, loosers of topgallant sail lay into the top with senior officer's vessel.

Unhook topsail sheets; toggle bowlines.

Take covers off fore-and-aft sails.

When signal of execution is hoisted, sail loosers lay aloft and loose with flagship or senior officer's vessel.

When signal of execution is hauled down, let fall, haul and hoist away with flagship. Lay down on deck at once. Heads of spanker and trysail hauled out.

TO FURL SAILS FROM A BOWLINE.

When preparatory signal is understood, call all hands.

When preparatory signal is hauled down, captains of tops, topgallant yard men lay into tops with flagship.

When signal of execution is hoisted, furlers lay aloft and keep into the slings.

When signal of execution is hauled down, clew up, haul down, lay out and furl; hook topsail sheet, and lay down on deck at once.

Put covers on fore-and-aft sails.

TO LOOSE SAILS TO BUNTLINES.

When preparatory signal is understood, call all hands.

When preparatory signal is hauled down, captains of tops, loosers of the topgallant sail lay into the tops with the flagship.

Take covers off fore-and-aft sails.

When the signal of execution is hoisted, sail loosers lay aloft, lay out and loose with flagship.

When signal of execution is hauled down, let fall. The buntlines and clew jiggers will be kept even with the yards, headsails spread out and heads of spanker and trysail hauled out two-thirds. Lay down on deck at once.

TO FURL SAILS WHEN LOOSED TO BUNTLINES.

When preparatory signal is understood, call all hands.

When preparatory signal is hauled down, captains of tops, and topgallant yard men lay into the tops with the flagship.

When the signal of execution is hoisted, furlers lay aloft and keep into the slings.

When signal of execution is hauled down, clew up, lay out, furl, and lay down on deck at once.

Put covers on fore-and-aft sails.

TO MAKE SAILS TO TOPGALLANT SAILS.

When the preparatory signal is understood, call all hands. Get lower booms alongside, unhook topping lifts, top up spanker boom, cast adrift ridge ropes.

When preparatory signal is hauled down, captains of tops, topgallant yard men lay into the tops with the flagship.

Take covers off fore-and-aft sails.

When signal of execution is hoisted, sail loosers lay aloft, lay out and loose with the flagship.

When signal of execution is hauled down, let fall, lay down from aloft, make sail, brace up by lee or port braces without reference to flagship.

TO TAKE IN ALL SAIL.

When signal is understood, call all hands. Man the gear.

When signal is hauled down, take in sails and square yards without reference to the flagship.

TO REEF TOPSAILS.

When signal is understood, man the gear.

When signal is hauled down, take in light sails and reef without reference to flagship.

When second reef is taken, furl topgallant sail.

When third reef, take second reef in courses, furl mizzen top-sail and spanker, set main trysail.

TO SHIFT TOPSAILS.

When signal is understood, man the gear for shortening sail, and get other topsail ready.

When signal is hauled down, take in light sail, furl and unbend topsail, send aloft and bend other topsail and make sail as before, without reference to the flagship.

TO SHIFT COURSES.

When signal is understood, man the gear of courses, and get other courses ready.

When signal is hauled down, haul up courses, furl, unbend, send aloft others, bend and set without reference to the flagship.

TO SEND UP TOPGALLANT MAST, MAIN AND MIZZEN TOPMASTS.

When preparatory signal is understood, call all hands.

When preparatory signal is hauled down, captains of tops, topgallant yard men lay into tops with flagship.

When signal of execution is hoisted, lay aloft, sway aloft masts and put in fids.

When signal of execution is hauled down, launch, set up backstays, haul taut rigging, lay down on deck at once.

TO HOUSE TOPGALLANT MAST, MAIN AND MIZZEN TOPMASTS.

When preparatory signal is understood, call all hands.

When preparatory signal is hauled down, captains of tops, topgallant yard men lay into tops with flagship, and send down heel ropes.

When signal of execution is hoisted, lay aloft, come up backstays, sway up and unfid.

When signal of execution is hauled down, lower away, stop in rigging, lay down on deck at once.

TO CROSS TOPGALLANT YARD.

When preparatory signal is understood, call all hands.

When preparatory signal is hauled down, captains of tops, topgallant yard men lay into tops with flagship, and one man to each upper yardarm in lower rigging. Sway out of chains, and sway upper yardarms one foot above top rims.

When signal of execution is hoisted, lay aloft and sway aloft.

When signal of execution is hauled down, sway across, bend gear, square yards and lay down on deck.

TO SEND DOWN TOPGALLANT YARD.

When preparatory signal is understood, call all hands.

When preparatory signal is hauled down, captains of tops, and topgallant yard men lay into tops with flagship and send down yard ropes and tripping lines.

When signal of execution is hoisted, lay aloft, unbend gear, and stop out yard ropes.

When signal of execution is hauled down, sway, lower away, stop in gear, and lay down on deck at once.

TO SEND UP TOPGALLANT MAST AND TOPGALLANT YARD.

When preparatory signal is understood, call all hands.

When preparatory signal is hauled down, captains of tops, and topgallant yard men lay into tops and lower rigging with flagship.

When signal of execution is hoisted, lay aloft, sway aloft, and fid; then sway out of chains and aloft topgallant yard, set up backstays.

When signal of execution is hauled down, sway across, bend gear, stay masts, square yards and lay down on deck.

TO SEND DOWN TOPGALLANT YARD AND TOPGALLANT MAST.

When preparatory signal is understood, call all hands.

When preparatory signal is hauled down, captains of tops, topgallant yard men lay into tops with flagship and send down yard ropes, tripping lines, and heel ropes.

When signal of execution is hoisted, lay aloft, unbend the gear, stop out yard ropes, and come up backstays.

When signal of execution is hauled down, sway across and let fall with flagship, bend gear, square yards, and lay down on deck.

The light sails must fall as the yards cross.

TO SEND UP TOPGALLANT MAST, CROSS TOPGALLANT YARD LOOSE SAIL.

When preparatory signal is understood, call all hands.

When preparatory signal is hauled down, captains of tops, and topgallant yard men lay into tops and lower rigging with flagship.

Take covers off fore-and-aft sails.

When signal of execution is hoisted, sway aloft and fid masts; then sail loosers lay aloft, sway out of chains and aloft the topgallant yard; lay out and loose, set up backstays.

When signal of execution is hauled down, sway across and let fall with flagship, bend gear, stay masts, square yards, and lay down on deck.

TO BEND SAILS.

When preparatory signal is understood, call all hands, get sails on deck and ready for bending.

When preparatory signal is hauled down, captains of tops, and men stationed to overhaul gear will lay aloft with flagship and overhaul down gear. Get topgallant yard on deck.

When signal of execution is hoisted, sway aloft sails and lay aloft to the slings of the yards.

When signal of execution is hauled down, lay out, haul out, bring to furl, get light yards in rigging, lay down on deck.

TO UNBEND SAILS.

When preparatory signal is understood, call all hands.

When preparatory signal is hauled down, captains of tops, and topkeepers lay aloft with flagship. Get topgallant yard on deck.

When signal of execution is hoisted, lay aloft, lay out and bend.

When signal of execution is hauled down, ease away, lower away, stop in gear, get light yards in rigging, lay down on deck.

If topgallant yard is crossed when preparatory signal to bend or unbend sails is made, it will be sent on deck when the preparatory signal is hauled down.

NOTE.—A signal is considered as hoisted when it reaches the truck or yardarm, and as hauled down when it starts to be lowered.

SHORE LIBERTY.

1. Apprentices should be allowed liberty in foreign ports whenever possible. They must not be permitted, for obvious reasons, to remain on shore later than sundown. In the warm climate of the West Indies they should wear white mustering suits and

white hats over woolen underclothing. For spending money they are allowed from 50 cents to \$1.50 in each port, depending upon their conduct report. This sum is as much as they can afford, and is ample for all purposes.

2. Boys should be cautioned against drinking spirits while on shore. The medical officer should examine boys once a fortnight.

3. Church parties should form in rank and march from the boats to church and return, always in charge of an officer.

HYGIENE.

1. While cruising in the West Indies, after early coffee in the morning watch, both at sea and in port, the apprentices are mustered and sent over the mastheads. If any show lack of activity they are sent over a second time. While washing down the decks they are again mustered to receive a cold shower bath from the deck hose. This is unvariable, and is always carried out when the temperature of the water is above 65° Fahr. It has an excellent tonic effect on the body and assures cleanliness. Boys are also encouraged to go in swimming alongside in the evening whenever circumstances of weather and surroundings permit.

2. The Navy regulations regarding vaccination should be strictly enforced.

3. The awnings should be kept spread as much as possible as a precaution against the sun's rays and on account of the frequent showers. Boys should not be allowed to sleep on the deck unless under awnings. Wet clothing should be changed as quickly as possible, to avoid danger from fevers.

4. While in the West Indies and similar places the fruit allowed each apprentice boy from the shore boats should be of the proper quality and limited in amount, as this is a common cause of diarrhea.

5. In hot climates drills, when between 10 a. m. and 4 p. m., should be conducted under awnings, and boat drills involving prolonged exposure to the sun between these hours should not be held regularly.

6. On account of the liability to exposure to malarial and other fevers, as well as the formation of dissolute habits, the apprentices should be granted only sundown liberty.

7. Systematic inspection of apprentices by the medical officer should be held bimonthly, or oftener, if necessary.

8. **FIRST AID.**—Systematic instruction should be given in the simpler methods of first aid to the injured. Instruction on other subjects occupies such a large amount of the time, as well as the attention of the boys, that it is not practicable to enter much into the details of first aid. A few practical points which can be easily remembered are of more value than a series of lectures on this subject.

9. The health officers in all West Indian ports are very strict in enforcing quarantine regulations. Clean bills of health should therefore be secured in each case before leaving port.

10. It must not be forgotten that vessels from the West Indies arriving at Southern ports of the United States after April 1, and at Northern ports after May 1, are subject by quarantine regulations to five days' detention in quarantine.

THE MESS AND PAYMASTER'S DEPARTMENT.

The regulation ration is issued to the boys, three-fourths of the rations being issued direct and one-fourth commuted. The rations not commuted are issued directly to the commissary yeoman, who is charged with the duty of feeding the boys. He is provided with an extra storeroom for the use only of the boys' messes; thus he is enabled to manage details as he sees fit, and is not hampered by the necessity of serving out supplies to the boys' mess on the same day on which they are issued to him.

It is found that the rations issued (three-fourths of the total number) make not more than two meals a day; thus the money obtained from the commuted ration is applied—

- (1) To supplying the third meal at sea and in port.
- (2) To supplying articles not in the ration for all three meals.
 - Extra bread (in port).
 - Extra flour (at sea).
 - Potatoes.

Condensed milk (at sea and in port).

Canned vegetables.

Dried fruit.

Fresh fruit.

Baking powder.

Yeast.

Hops.

Canned fish.

Salt fish.

Dried beans.

Dried pease.

Lard (important).

Cheese.

Macaroni.

Utensils.

Hams.

Shoulders.

Oatmeal.

(3) To supplying extra bread.

(4) To buying additional provisions from the pay department; advantage being thus taken of Government prices.

This method works as well as could any method in a ship of this description and in a cruise in the West Indies. A great aid to its efficiency is the small additional storeroom alluded to. It enables the commissary yeoman to keep his stores quite apart from pay department stores. It enables him to take advantage, as far as is warranted by the amount of his income from commuted rations, of New York prices and quality of goods, by purchasing such stores as can not be bought to advantage in the West Indies.

If this method is used, it will be found of great benefit to take, at the beginning of the cruise as many tinned vegetables and tinned tomatoes as can be stowed, from the general storekeeper, as these are needed in larger quantities than allowed by the ration, and are better in quality and far cheaper in price than any that can be obtained in the West Indies. Other stores will be suggested by specific conditions and by the character and size of storerooms and the nature and extent of the cruise. On the handling of the mess money perhaps no suggestions are of value, except, however, that as a matter of safety the mess,

after the ship leaves the United States, should have a margin of cash on hand of about the amount of its income for one month; thus long sea trips can be provided for from time to time without putting the boys' mess in debt. The mess, under an able steward, can be so managed that contributions from its members outside of the commuted rations are not needed.

The effort is, of course, primarily for proper cooking and serving, rather than for elaborate meals. Aside from limited means, it is found that the apprentices much prefer one dish that they relish to any attempt at several dishes in one meal. This being the case, the cooks should be disturbed and called away from their work as little as possible; the less the better. It is suggested that their interruptions might be confined to necessary and important general drills, and that, aside from these, the cooks be under the charge and quite at the disposal of the commissary yeoman or steward, if he is a competent man. This is vital to the boys and means more than any one thing.

Generally speaking, in the West Indies, in English islands, where there is a contractor for the English men-of-war or for the English troops, such contractor will generally prove the most reliable and the most satisfactory dealer in fresh provisions.

Canned goods, dried fruits, and the like are costly, and the purchase should be avoided and anticipated as far as possible.

Flour, sugar, rice, beans, oatmeal, and the like can be bought at prices that are not unreasonable; and if storeroom capacity is small, more than the proportionate quantity of the former class might be taken, because purchase is not advisable, and less than the proportionate quantity in the latter class might be taken, as they may be bought from time to time; but if possible a full supply of all should be taken.

Condensed milk can be had only at prohibitive prices, and a full supply for the whole cruise should be taken. This is more important, as it is used with many kinds of food at sea, and to some extent in cooking, and daily with coffee, tea, or cocoa.

Extra bread will be needed, especially in English West India ports. In French and Spanish ports the bread is better and goes farther.

Most of the fresh beef and vegetables are merely passable. The terms used in Table A refer to West India facilities, taking Barbados, perhaps, as the standard. Thus "good" means

good for the West Indies, not necessarily good for the United States.

A shortage in salt-water soap should be guarded against, and as a rule the supply in tinned goods in any one place is so limited as to be hardly equal to the demand of one ship.

All training ships should be fitted with a baking oven of approved type and the necessary appliances for making light, wholesome bread, pies, cakes, puddings, gingerbread, and similar delicacies. These latter are especially relished by the boys and go far to make them contented with ship's fare.

More than the regulation time should be given for the boys' mess gear, as it is necessary to serve each ration separately on the tables. Not less than twenty minutes should be allowed for this.

MONEY.

American gold can be used in most of the islands. The rate varies between 20s. 5d. (\$4.97) to 20s. 9d. (\$5.04), the average being about 20s. 6d. (\$4.99), practically at par; so that it would seem advisable for a pay officer to carry enough with him in American gold for the cruise, as he thus avoids drawing large bills of exchange. The men and officers lose little or nothing, and he can ask to have his public bills rendered in terms of United States money, when saving will result.

Suppose a dealer renders a bill for £5. Ask him to render the same bill in United States money and he will generally render it £5 × \$4.80, or \$24; but £5 by pay table at legal rate is \$24.33. Some paper money should be carried for ports like Kingston.

In Kingston it is better to use bills (paper money) than to use gold, since the merchants remit to New York and take them at par.

In St. Thomas and St. Croix both bills and gold are generally not below par. At times there is a premium on United States gold varying from 1 per cent to 4 per cent, usually about 2 per cent.

In Barbados, St. Thomas, St. Kitts, Kingston, and St. Lucia checks can be used in payment of public bills. In Kingston checks are better to use than gold.

Pay officers can obtain funds on checks in small quantities from the large dealers in Barbados and Kingston; in St. Kitts at times from De Lisle. Bills of exchange for larger sums can be nego-

tiated wherever there is a branch of the British Colonial Bank. Perhaps Barbados is the best place, though at times good rates are obtainable in smaller places. The Colonial Bank generally will not take our checks for funds. The Bank of Nova Scotia will take our checks at par, and have generally several thousand dollars to spare (Kingston).

CLOTHING AND SMALL STORES.

Apprentices use about double the quantity that men use, especially a quadruple supply of lanyards, a double supply of neckerchiefs, and a triple supply of knives.

Of white hats only a small number of any size less than 7 is found useful; the majority use Nos. 7, $7\frac{1}{8}$, or $7\frac{1}{4}$.

In case a supply of working clothes somewhat larger than the ordinary supply can not be taken, extra quantities of drill (bleached) should be taken.

A certain proportion of sizes smaller than the regulation sizes is advisable in blue mustering, white mustering, and white working clothes. If there is not time to have these made so as to fit the smaller boys, then extra drill, heavy flannel, and trousers cloth should be provided to meet the deficiency.

Measurements of the present crew of apprentices, somewhat smaller boys than the average, indicate the following proportions:

Number of boys.	Size of trousers.	Number of boys.	Size of jumpers.
5.....	No. 2.	5.....	No. 3e.
20.....	No. 4.	5.....	No. 4e.
3.....	No. 5.	10.....	No. 5e.
17.....	No. 6.	20.....	No. 6e.
17.....	No. 7.	60.....	(*)
8.....	No. 8.		
3.....	No. 9.		
8.....	No. 10.		
19.....	(*)		

*Size smaller than any regulation size. Three sizes might well be made.

That is to say, the ordinary assortment of sizes is not suitable.

TABLE A.

Port.	Beef.	Fresh bread.	Fresh vegetables.	Rating of same.	Dealers in same.	General market.	Facilities for sea stores.	Facilities for general stores.	Dealers in general stores.	Dealers in sea stores.
Barbados	12	4½	4	Excellent	{ J. H. W. Mann Whitfield }	{ Good }	Good	Fair	{ Da Costa Whitfield Hanschell * Ekstein Harrison & Co }	{ Da Costa Whitfield Hanschell J. H. W. Mann }
Martinique	13	4½	5	Good	A. Alivoir	Fair	None	None	Peter & Co	Pork.
St. Lucia	15	5	5½	Good	{ A. B. Mark Chastanet }	Fair	None	None	{ Several; uncertain stock. J. H. Fechtenberg J. P. Levi }	Hard bread.
Trinidad	10	5	3	Fair	{ Ellis Grell & Co }	{ Good }	{ Fair; prices high. }	{ Fair }	{ J. H. Fechtenberg J. P. Levi McDougall Lockhart }	{ Ellis Grell & Co. J. H. Fechtenberg J. P. Levi }
St. Thomas	12	5	6	Good	{ C. V. La Beet Fernandez & Co }	{ Fair }	Good	Fair	McDougall	{ Peter & Co Ellis Grell & Co. J. H. Fechtenberg J. P. Levi }
St. Kitts	8	5	3	Fair	{ Joseph Seaton J. A. R. Morton }	{ Fair }	Fair	Poor	Lockhart	{ J. H. Fechtenberg J. P. Levi McDougall Lockhart }
St. Croix	12	5	5	Fair	O. C. Jackson	Poor	Poor	Poor	McDougall	{ J. H. Fechtenberg J. P. Levi McDougall Lockhart }
La Guayra	10	10	7	Excellent	A. Guia	Poor	None	None	Lockhart	{ J. H. Fechtenberg J. P. Levi McDougall Lockhart }
Kingston	10	5	5	Passable	Clarendon butchery	Good	Good	Fair	{ Emmanuel Lyous L. W. Johnson Henderson }	{ Honford & Co. De Lisle Army and Navy store and several others. }

*Hanschell will assemble purchases so as to present but one bill.
NOTE.—In several places there are other dealers than those mentioned. Only those are given with whom the paymaster came in contact.

DAILY BILL OF FARE.

The table on page 53 gives the daily bill of fare served to the apprentices on the *Annapolis* during the winter cruise of 1898-99. It shows the dishes served each meal for the month of October in home ports and waters and for the month of December in West Indian ports and waters.

It will be seen that by commuting one quarter of the rations, the method allowed by the Department, a great variety of dishes is possible. It was found also that there was an abundance of food, enough to satisfy the sharp appetites of seventy-two healthy, hungry boys.

It must be added that good management, economy, foresight, and careful supervision are necessary to produce satisfactory results. Much depends upon the knowledge and skill of the commissary yeoman.

It is of course unnecessary to dwell upon the importance of a good table. Nothing conduces more to the contentment and good health of the boys, two factors which bear most directly upon the success of the cruise.

The bumboat is a very important institution and one much appreciated by the boys. The bumboat man should be required to furnish articles suitable to their tastes and wants. A very careful supervision must, however, be exercised over this functionary, as he is apt to accept articles of clothing, knives, etc., in exchange for his stock in trade.

*Bill of fare of apprentices' mess, U. S. S. Annapolis, third rate,
in United States ports and waters, October, 1899.*

Date.	Breakfast.	Dinner.	Supper.
Oct. 1, in port:	Fried eggs and bacon. Corn bread. Coffee.	Roast beef. Mashed potatoes. Sliced tomatoes. Fresh bread. Coffee.	Boiled ham (cold). Fresh bread. Tea.
Oct. 2, in port:	Baked beans. Fresh bread and butter. Coffee.	Vegetable soup. Boiled beef. Boiled potatoes. Fresh bread. Coffee.	Rice pudding. Jelly. Fresh bread. Tea.
Oct. 3, in port:	Hamburger steak. Fried potatoes. Fresh bread. Coffee.	Boiled ham. Cabbage. Boiled potatoes. Fresh bread. Coffee.	Boiled sausage. Cheese. Fresh bread. Tea.
Oct. 4, in port:	Oatmeal and milk. Fresh bread and butter. Coffee.	Roast beef. Mashed potatoes. Fresh bread. Coffee.	Clam chowder. Crackers. Fresh bread. Tea.
Oct. 5, at sea:	Fresh beef stew. Corn bread. Coffee.	Boiled fish. Boiled potatoes. Fresh bread. Coffee.	Cold meat. Fried potatoes. Fresh bread. Tea.
Oct. 6, at sea:	Frankfurt sausage. Fresh bread. Coffee.	Corned beef. Cabbage. Boiled potatoes. Fresh bread. Coffee.	Gingerbread. Jelly. Fresh bread. Butter. Tea.
Oct. 7, at navy yard:	Fried fish. Potatoes. Fresh bread. Coffee.	Vegetable soup. Boiled beef. Potatoes. Fresh bread. Coffee.	Beef stew. Fresh bread. Coffee.

NOTE.—Sugar and milk are served with all coffee and tea.

Bill of fare of apprentices' mess at navy yard, New York, and Tompkinsville, S. I.

Date.	Breakfast.	Dinner.	Supper.
Oct. 8, at navy yard, New York:	Fried fish. Boiled potatoes. Fresh bread and butter. Coffee.	Vegetable soup. Boiled beef. Cabbage. Mashed potatoes. Coffee. Fresh bread.	Cold meat. Cold ham. Fresh bread. Tea.
Oct. 9, at navy yard:	Oatmeal and milk. Apples. Fresh bread and butter. Coffee.	Roast beef. Baked potatoes. Lima beans. Fresh bread. Coffee.	Rice pudding. Jelly. Fresh bread and butter. Tea.
Oct. 10, at navy yard:	Bread, butter. Fried eggs. Coffee.	Pot roast (beef). String beans. Boiled potatoes. Fresh bread. Coffee.	Baked beans and pork. Fresh bread and butter. Tea. Apples.
Oct. 11, at navy yard:	Oatmeal and milk. Coffee. Fresh bread. Butter.	Bean soup. Salt pork. Bread pudding. Fresh bread. Coffee.	Bologna. Fresh bread. Fried potatoes. Apples. Tea.
Oct. 12, at navy yard:	Corned beef hash. Fresh bread. Coffee.	Vegetable soup. Fresh boiled beef. Potatoes. Fresh bread. Coffee.	Potato salad. Salt herrings. Fresh bread. Butter. Apples. Tea.
Oct. 13, at navy yard:	Pork and beans. Fresh bread. Coffee.	Roast beef. Mashed potatoes. Sliced tomatoes. Fresh bread. Coffee.	Rice pudding. Butter. Tea. Fresh bread and butter.
Oct. 14, at navy yard:	Fresh beef stew. Fresh bread. Coffee.	Baked stuffed codfish. Green peas. Fresh bread. Coffee.	Gingerbread. Apples. Fresh bread. Butter. Tea.
Oct. 15, at navy yard:	Oatmeal and milk. Fresh bread. Coffee.	Roast beef. Lima beans. Mashed potatoes. Fresh bread. Coffee.	Macaroni and cheese. Fresh bread. Tea. Apples.

NOTE.—Sugar and milk are served with all coffee and tea.

Bill of fare of apprentices' mess at navy yard, New York, and Tompkinsville, S. I.—Continued.

Date.	Breakfast.	Dinner.	Supper.
Oct. 16, at navy yard:	Oatmeal and milk. Fresh bread. Coffee.	Roast beef. Lima beans. Potatoes. Fresh bread.	Bologna sausage. Fresh bread. Fried potatoes. Tea.
Oct. 17, at navy yard:	Beef stew. Fresh bread. Coffee.	Vegetable soup. Boiled beef. Green peas. Fresh bread. Coffee.	Beef hash. Apples. Bread. Tea.
Oct. 18, at navy yard:	Herrings. Fresh bread. Rice. Coffee.	Roast beef. Sliced fresh tomatoes. Boiled potatoes. Fresh bread. Coffee.	Gingerbread. Apples. Fresh bread and butter. Tea.
Oct. 19, in port, Tompkinsville:	Fried steak. Potatoes. Fresh bread. Coffee.	Boiled ham. String beans. Potatoes. Fresh bread. Coffee.	Fish balls. Fresh bread. Butter. Tea.
Oct. 20, in port:	Boiled eggs. Corn bread. Coffee.	Beefsteak pie. Fresh bread. Coffee.	Bread pudding. Stewed prunes. Fresh bread. Tea.
Oct. 21, in port:	Fried fish. Boiled potatoes. Fresh bread. Coffee.	Roast beef. Potatoes. Fresh bread. Coffee.	Gingerbread. Jelly. Fresh bread. Tea.
Oct. 22, in port:	Fresh beef stew. Hard biscuits. Coffee.	Bean soup. Rice pudding. Biscuits. Coffee.	Macaroni. Cheese. Apples. Hot biscuits. Tea.
Oct. 23, in port:	Oatmeal and milk. Hot biscuits. Butter. Coffee.	Roast beef. Mashed potatoes. Green peas. Biscuits. Coffee.	Bologna sausage. Cold ham. Biscuits. Tea.

NOTE.—Sugar and milk are served with all coffee and tea.

Bill of fare of apprentices' mess at navy yard, New York, and Tompkinsville, S. I.—Continued.

Date.	Breakfast.	Dinner.	Supper.
Oct. 24, in port:	Beef hash. Fresh bread. Coffee.	Vegetable soup. Boiled beef. String beans. Biscuits. Coffee.	Herring salad. Fresh bread. Butter. Tea.
Oct. 25, in port:	Herrings. Potatoes. Fresh bread. Coffee.	Roast beef. Green peas. Sweet potatoes. Fresh bread. Coffee.	Boiled rice. Molasses. Tea. Fresh bread. Butter. Apples.
Oct. 26, in port:	Fresh beef hash. Coffee. Fresh bread.	Canned ham. Lima beans. Boiled potatoes. Fresh bread. Coffee.	Gingerbread. Jelly. Fresh bread. Tea.
Oct. 27, in port and at sea:	Baked beans and pork. Fresh bread. Coffee.	Roast mutton. Stewed tomatoes. Mashed potatoes. Fresh bread. Coffee.	Macaroni and cheese. Tea. Fresh bread.
Oct. 28, at sea:	Fish hash. Coffee. Biscuits.	Cold salt beef. Lima beans and cat- sup. Mustard. Biscuits. Coffee.	Boiled rice and raisins. Biscuits. Tea.
Oct. 29, at sea:	Oatmeal and milk. Coffee. Biscuits. Butter.	Bean soup. Plum pudding. Biscuits. Coffee.	Herring salad. Tea. Hot biscuits.
Oct. 30, at sea:	Herrings. Fresh bread. Butter. Coffee.	Roast beef. Stewed tomatoes. Fried potatoes and onions. Biscuits and coffee.	Boiled rice and mo- lasses. Soft bread. Tea.
Oct. 31, at sea:	Mutton stew. Biscuits. Coffee.	Roast beef. Peas. Lima beans. Boiled potatoes.	Gingerbread. Jelly. Fresh bread. Tea.

NOTE.—Sugar and milk are served with all coffee and tea.

*Bill of fare of apprentices' mess in West Indian ports and waters,
December, 1898.*

Date.	Breakfast.	Dinner.	Supper.
Dec. 1, in port :	Beef hash. Fresh bread Oranges. Coffee.	Vegetable soup. Roast beef. Sweet potatoes. Lima beans. Fresh bread.	Cold meat. Potato salad. Bread. Bananas. Tea.
Dec. 2, in port :	Oatmeal and milk. Fresh bread. Oranges. Coffee.	Salt codfish and cream sauce. Stewed tomatoes. Sweet potatoes. Fresh bread. Coffee.	Boiled rice and mo- lasses. Fresh bread. Bananas. Tea.
Dec. 3, in port :	Smoked herrings. Bananas. Fresh bread. Coffee.	Roast beef (fresh). Sweet potatoes. Lima beans. Fresh bread. Coffee.	Corn cake. Fresh bread. Oranges. Tea.
Dec. 4, in port :	Oatmeal and milk. Fresh bread. Coffee.	Cold ham. Potatoes. String beans. Sago pudding. Oranges. Fresh bread.	Bread and butter. Jelly. Bananas. Tea.
Dec. 5, in port :	Stewed beef. Fresh bread. Coffee.	Vegetable soup. Boiled beef. Sweet potatoes. Oranges and bananas. Fresh bread.	Gingerbread and but- ter. Fresh bread. Oranges. Tea.
Dec. 6, at sea :	Baked beans and pork. Fresh bread. Oranges. Coffee.	Roast beef. Lima beans. Mashed potatoes. Bananas. Coffee.	Cold roast beef. Potato salad. Fresh bread. Tea.
Dec. 7, at sea :	Oatmeal and milk. Fresh bread. Coffee.	Sea pie. Sweet potatoes. Oranges. Fresh bread. Coffee.	Boiled rice and mo- lasses. Fresh bread. Tea.
Dec. 8, at sea :	Smoked herrings. Fresh bread and but- ter. Oranges. Coffee.	Bean soup. Plum pudding and lemon sauce. Hard bread.	Hot biscuits. Jelly. Butter. Tea.

NOTE—Sugar and milk are served with all coffee and tea.

*Bill of fare of apprentices' mess in West Indian ports and waters,
December, 1898—Continued.*

Date.	Breakfast.	Dinner.	Supper.
Dec. 9, at sea :	Oatmeal and milk. Fresh bread. Oranges. Coffee.	Cold ham, mustard. Green peas. Sweet potatoes. Hard bread and butter. Coffee.	Corn pudding and lemon sauce. Tea.
Dec. 10, in port :	Baked beans. Hot biscuits. Butter. Coffee.	Potpie, baked. Stewed tomatoes. Hard bread. Coffee.	Corned beef hash. Hot biscuits. Tea.
Dec. 11, in port :	Oatmeal and milk. Hot biscuits. Coffee.	Fresh roast beef. Lima beans. Mashed potatoes. Apple pie. Oranges. Coffee.	Cold beef. Fried potatoes. Fresh bread. Oranges.
Dec. 12, in port :	Oatmeal and milk. Fresh bread. Coffee.	Vegetable soup. Boiled beef. Potatoes. Fresh bread. Coffee.	Sago pudding. Fresh bread. Oranges. Tea.
Dec. 13, in port :	Corned beef hash. Fresh bread. Oranges. Coffee.	Roast beef. Green peas. Sweet potatoes. Fresh bread. Coffee.	Gingerbread. Fresh bread. Butter. Oranges. Tea.
Dec. 14, in port :	Beef stew. Fresh bread. Oranges. Coffee.	Roast beef. Sweet potatoes. Sago pudding. Oranges. Fresh bread.	Meat balls. Fried potatoes. Fresh bread. Tea.
Dec. 15, at sea :	Smoked herrings. Fresh bread. Coffee.	Bean soup. Plum pudding. Lemon sauce. Fresh bread.	Fresh bread. Butter. Cake. Tea.
Dec. 16, at sea :	Oatmeal and milk. Hot biscuits. Butter. Coffee.	Beef pie. Lima beans. Sweet potatoes. Coffee.	Sago pudding. Hot biscuits. Oranges. Tea.

NOTE.—Sugar and milk are served with all coffee and tea.

*Bill of fare of apprentices' mess in West Indian ports and waters,
December, 1898—Continued.*

Date.	Breakfast.	Dinner.	Supper.
Dec. 17, in port:	Corned beef hash. Fresh bread. Coffee.	Vegetable soup. Stewed beef. Fresh bread. Potatoes. Oranges.	Meat balls. Fresh bread. Oranges. Tea.
Dec. 18, in port:	Baked beans and pork. Fresh bread. Coffee.	Roast beef (fresh). Green peas. Sweet potatoes. Squash pie. Fresh bread. Oranges. Coffee.	Corn cake. Fresh bread. Oranges. Tea.
Dec. 19, in port:	Smoked herrings. Fresh bread. Oranges. Coffee.	Vegetable soup. Boiled beef. Lima beans. Fresh bread.	Fish balls. Fried potatoes. Fresh bread. Tea.
Dec. 20, at sea :	Oatmeal and milk. Fresh bread. Oranges. Coffee.	Cold corned beef. Stewed tomatoes. Boiled potatoes. Fresh bread. Coffee.	Rice pudding. Fresh bread. Butter. Tea.
Dec. 21, at sea :	Corned beef hash. Fresh bread. Oranges. Coffee.	Beef pie. Lima beans. Fresh bread. Coffee.	Gingerbread. Hot biscuits. Butter. Tea.
Dec. 22, at sea :	Beef stew. Fresh bread. Oranges. Coffee.	Bean soup. Plum pudding and lemon sauce. Fresh bread.	Meat balls. Tomato sauce. Hot biscuits. Tea.
Dec. 23, in port :	Baked beans. Hard biscuits. Coffee.	Meat loaf. Green peas. Hard biscuit. Potatoes. Coffee.	Salmon salad. Fresh bread. Tea.
Dec. 24, in port :	Oatmeal and milk. Fresh bread. Oranges and bananas. Coffee.	Vegetable soup. Boiled beef. Sweet potatoes. Fresh bread.	Rice and molasses. Fresh bread. Tea.

NOTE.—Sugar and milk are served with all coffee and tea.

*Bill of fare of apprentices' mess in West Indian ports and waters,
December, 1898—Continued.*

Date.	Breakfast.	Dinner.	Supper.
Dec. 25, in port :	Beef stew. Fresh bread. Coffee.	Roast turkey. Cold ham, cranberry sauce. Baked sweet pota- toes. Boiled onions. Apple pie. Nuts, candy, raisins, bananas, lemonade.	Cold meat. Potato salad. Fresh bread. Tea.
Dec. 26, in port :	Smoked herrings. Fresh bread. Oranges. Coffee.	Roast beef (fresh). Sweet potatoes. Fresh bread. Coffee.	Gingerbread. Potato salad. Oranges. Tea.
Dec. 27, in port :	Baked beans. Fresh bread. Oranges. Coffee.	Vegetable soup. Boiled beef. Sweet potatoes. Fresh bread.	Rice pudding. Bananas. Fresh bread. Tea.
Dec. 28, in port :	Corned beef hash. Fresh bread. Bananas. Coffee.	Bean soup. Baked rice pudding. Fresh bread. Lemonade. Oranges.	Fresh bread. Stewed apples. Cake and tea.
Dec. 29, in port :	Oatmeal and milk. Fresh bread. Coffee.	Fresh roast beef. String beans. Sweet potatoes. Fresh bread. Coffee.	Cornstarch pudding. Fresh bread. Tea.
Dec. 30, in port :	Beef stew. Fresh bread. Coffee.	Ham sandwiches. Cakes. Bananas. Coffee. (Target practice.)	Hot roast beef (fresh). Mashed potatoes. Lima beans. Fresh bread. Tea.

NOTE.—Sugar and milk are served with all coffee and tea.



PUNISHMENT AND DEMERIT SCHEDULE.

One hundred demerits: No leave at end of cruise.

One demerit: One hour extra duty.

Ten demerits in one month: Deprivation of liberty two weeks.

Twenty demerits in one month: Deprivation of liberty one month.

Deprivation of liberty and money one month for any of the following offenses:

Profanity.

Lying.

Asleep on post.

Having clothing of another in his possession.

Disobedience of orders.

Three days' solitary confinement and ten demerits for any of the following offenses:

Asleep on gun deck, watch on deck.

Turning in hammock, watch on deck.

Drunk or tight from liberty.

Insubordination or disrespect.

Five days' confinement and twenty demerits for any of the following offenses:

Drunkenness.

Theft.

Striking or attempting to strike a petty officer.

Demerits given for any of the following offenses:

One demerit.....Tardiness; untidiness; out of uniform; clothes in lucky bag.

Two demeritsInattention; talking or skylarking in ranks; absence from formation or station aloft.

Three demerits...Playing cards or smoking out of hours; going to bag without permission; dirty clothing or bedding; talking after tattoo; torn or unmarked clothing.

Four demerits....Slow in obeying calls.

Five demeritsObscene language; spitting on deck.

- Six demerits -----Neglect of duty; exchanging, borrowing, lending, or selling clothing; disrespectful to a petty officer.
- Seven demerits...Losing or destroying Government property, including library books.
- Eight demerits...Lying; having property of another in possession; fighting.
- Nine demerits.....Smoking cigarettes; filthy clothing; dirty person.
- Ten demerits.....Disregard of orders; injury to the person of another; below without permission, watch on deck.

Double number of demerits for repetition of the same offense.

In addition to the number of demerits given for losing or exchanging clothing, those apprentices who trade or sell their jackknives, white hats, or any other article of their effects, to the bumboat man or any other person will have the price of the article deducted from their liberty-money allowance and be required to purchase new knives, etc.

PUNISHMENTS FOR OVERSTAYING LEAVE.

Less than two hours: Second-conduct class.

Two hours and less than eight: Third-conduct class.

Over eight hours: Fourth-conduct class and three to five days' solitary confinement.

NOTE.

One of the objects of cruising training ships visiting foreign ports is that the apprentices may acquire added interest in their calling, and at the same time gain information that will increase their general knowledge about foreign countries and their people.

Therefore, whenever the conduct of apprentices is such as to deprive them, under the rules, of liberty on shore granted apprentices, the commanding officer will send such apprentices, not in actual confinement, on shore, in charge of a petty officer, to visit the principal objects of interest, and then to be brought back on board ship.

ROUTINE OF DRILLS.

MONDAY.

9.30 to 10.30 a. m.

First division-----	}	First, second, and third Mondays: Sail drill. Fourth Monday: Spar drill. In port: Boat drill under sails or oars.
Second division---		
Third division ----		
Powder division ..		
Engineer's division }		

11 to 11.30 a. m.

First division -----	-----Anchors: Secure; let go; pass stoppers; mark chain; mooring and unmooring.
Second division-----	-----Leads, log lines, sounding machine: Explanation of their uses. Running rigging: How rove off. Blocks: Different kinds and use.
Third division-----	-----Standing rigging of a ship: Practice in rattling down; parceling, worming, and serving.
Powder division-----	-----Ship's duties.
Engineer's division ..	-----Ship's duties.

1.30 to 2.20 p. m.

First division -----	-----Aiming drill; gallery rifle; subcaliber practice.
Second division-----	-----Signals, telegraphic and international.
Third division-----	-----Signals, Army and Navy Code.
Powder division-----	-----Rifles: Manual of arms.
Engineer's division ..	-----Ship's duties.

Evening quarters.

All divisions -----	-----In port: Setting up drill. At sea: Reefing courses and topsails.
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TUESDAY.

9.30 to 10.30 a. m.

First division.....	} Company, artillery, and battalion drills. Fourth Tuesday of month: Equip battalion in heavy marching order.
Second division...	
Third division.....	
Powder division ..	
Engineer's division)	

11 to 11.30 a. m.

First division	Topgallant yard and sail drill.
Second division.....	Anchors: Secure; let go; pass stoppers; mark chain; mooring and unmooring.
Third division.....	Leads, log lines, sounding machine: Explanation of their uses. Running rigging: How rove off. Blocks: Different kinds and use.
Powder division.....	Ship's duties.
Engineer's division ..	Ship's duties.

1.30 to 2.20 p. m.

First division.....	Signals, Army and Navy Code.
Second division.....	Aiming drill; gallery rifle; subcaliber practice.
Third division.....	Signals, telegraphic and international.
Powder division.....	Pistols.
Engineer's division ..	Rifles: Manual of arms.

Evening quarters.

All divisions	In port: Setting-up drill. At sea: Reefing courses and topsails.
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Wednesday.

9.30 to 10.30 a. m.

First division	} Fire quarters; collision drill; abandoning ship.
Second division...	
Third division.....	
Powder division ..	
Engineer's division)	

11 to 11.30 a. m.

- First division.....Leads, log lines, sounding machine: Explanation of their uses. Running rigging: How rove off. Blocks: Different kinds and use.
- Second division.....Topgallant yard and sail drill.
- Third division.....Anchors: Secure; let go; pass stoppers; mark chain; mooring and unmooring.
- Powder division.....Ship's duties.
- Engineer's division...Ship's duties.

1.30 to 2.20 p. m.

- First division.....Second, fourth, and fifth Wednesdays of month: Compass, barometer, thermometer, chronometer. First and third Wednesdays of month: Pistols.
- Second division.....Signals, Army and Navy Code.
- Third division.....Aiming drill; gallery rifle; subcaliber.
- Powder division.....Ship's duties.
- Engineer's division...Stations and instructions at great guns.

Evening quarters.

- All divisionsIn port: Setting-up drill. At sea: Reefing courses and topsails,

Thursday.

9.30 to 10.30 a. m.

- | | |
|-----------------------|---|
| First division..... | } First Thursday of the quarter: Clear ship for action and target practice. General quarters and theoretical instruction in ordnance and gunnery. |
| Second division... | |
| Third division..... | |
| Powder division .. | |
| Engineer's division } | |

11 to 11.30 a. m.

- First division.....Standing rigging of a ship: Practice in rattling down; parcelling; worming; serving.
- Second division.....Fore-and-aft sails: Loose; furl; bend; unbend.

Third division.....Topgallant yard and sail drill.
 Powder division.....Ship's duties.
 Engineer's division..Ship's duties.

1.30 to 2.20 p. m.

First division.....Signals, telegraphic and international.
 Second division.....First, third, and fifth Thursdays of month:
 Compass, barometer, thermometer, chro-
 nometer. Second and fourth Thursdays:
 Singlesticks.
 Third division.....Second, fourth, and fifth Thursdays of
 month: Signals, Army and Navy Code.
 Second and fourth Thursdays of month:
 Singlesticks.
 Powder division.....Infantry drill.
 Engineer's division..Gallery rifle.

Evening quarters.

All divisionsIn port: Setting-up drill. At sea: Reefing
 courses and topsails.

FRIDAY.

9.30 to 10.30 a. m.

First division	} In port—Boat drill. First, second, and third Fridays: Fleet tactics. Fourth Friday: Arm and away all boats. At sea—First Friday: Spar drill. Second, third, fourth, and fifth Fridays: Sail drill.
Second division	
Third division	
Powder division ..	
Engineer's division }	

11 to 11.30 a. m.

First division.....Fore-and-aft sails: Loose; furl; bend; un-
 bend.
 Second division.....Standing rigging of a ship: Practice in rat-
 tling down; parceling; serving.
 Third division.....Fore-and-aft sails: Loose; furl; bend; un-
 bend.
 Powder division.....Ship's duties.
 Engineer's division..Ship's duties.

1.30 to 2.20 p. m.

- First division.....First, third, and fifth Fridays: Signals, Army and Navy Code. Second and fourth Fridays: Pistols.
- Second division.....Second, fourth, and fifth Fridays: Signals, Army and Navy Code. First and third Fridays: Pistols.
- Third division.....First, third, and fifth Fridays: Compass, barometer, thermometer, chronometer. Second and fourth Fridays: Pistols.
- Powder division.....Gallery rifle.
- Engineer's division...Pistols.

Evening quarters.

- All divisionsIn port: Setting-up drill. At sea: Reefing courses and topsails.

SATURDAY.*Morning.*

- All divisionsGeneral cleaning; all hands air bedding; inspection of bedding; inspection of 'apprentices' bags.

Afternoon.

- All divisionsBlack ironwork; half holiday; mending.

Evening quarters.

- All divisionsIn port: Setting-up drill. At sea: Reef courses and topsails.

SUNDAY.*9.20 a. m.*

- All divisionsPreliminary inspection of ship by executive officer.

9.30 a. m.

- All divisionsInspection at quarters of ship and crew by the commanding officer.

10 to 11 a. m.

All divisions Divine service.

All hands First Sunday of month: General muster.
Third Sunday of month: Articles of war.

Afternoon.

All divisions Evening quarters at sea.

NOTE.—When more than three gun divisions, the fourth division same exercise as first; the fifth same as second; the sixth same as third.

STATED DRILLS AND INSTRUCTION.

DAILY.

Up and over masthead at early daylight.
Shower bath with wash-deck hose.
Swimming every day, if practicable.
Setting-up drill at evening quarters in port.

WEEKLY.

Instruction in Myers' Code Signals; bell; whistle.
Instruction in Rules of Road.
Instruction as to parts of hull, build of ship, etc.
Instruction in stowage and construction of magazines.

SEMIMONTHLY.

Questions and stations at "All hands."
Shift: Apprentice signal boys; quartermasters; coxswains; messengers; corporals of the guard; orderlies.
Exercise at heaving lead from boats and finding soundings.
Carry out kedg and stream anchors.

MONTHLY.

Instruction in engine room of parts and description of engines.
Lectures on hygiene by surgeon of ship.

BIMONTHLY.

Change stations in different parts of the ship; divisions, etc.
Night fire quarters and general quarters.
Exercises at "Man overboard."

AT SEA.

When weather is favorable, watch on deck will be exercised at loosing and furling.

When practicable, watch on deck will be exercised at heaving lead from chains.

IN PORT.

Mondays, Wednesdays, and Fridays, loose and furl sail; to be performed as a general evolution.

CLEANING ROUTINE.

Scrub clothes every day at sea, except Saturday and Sunday. In port: Scrub clothes Mondays, Wednesdays, and Fridays.

Thursday: Clean boats and boat gear.

Friday: Overhaul pumps and battery.

First Monday of month: Serve out clean hammocks and bags.

First Tuesday of month: Scrub hammocks and bags.

First and third Wednesdays: Scrub mattress covers.

First and fourth Tuesdays: Scrub windsails and sail covers.

PORTS VISITED DURING WINTER CRUISE.

BARBADOS, W. I.

Bridgetown, the capital, situated on Carlisle Bay, is from its windward position generally selected for the first port in the itinerary of the winter cruise. The frequent mails, the cool, healthy winter climate, the well-stocked markets, render it one of the most attractive ports in the West Indies. Twenty days can be well spent on the passage from Newport. The distance is about 1,800 miles.

The most convenient and comfortable anchorage lies southwest of the adjutant general's wharf, in from 5 to 6 fathoms, inside of the Royal Mail mooring buoys, and near and to the southward of the powder hulk.

Men-of-war boats are allowed to land at either the adjutant general's wharf or the engineer's wharf; the latter lies about one-half mile to the southward of the adjutant general's wharf.

The governor and the general commanding are to be visited. The United States is represented by a consul and vice-consul. Salutes are returned. It is customary for the consul to arrange for making the official visits. This practice is general throughout the West Indies.

The health officer promptly boards the ship and gives pratique when a clean bill of health is presented.

Advantage should be taken of the smooth water and steady breezes for boat exercise under sail and oars.

TRINIDAD, W. I.

Port of Spain, the capital of Trinidad, situated on the Gulf of Paria, is the most flourishing city in the Windward group of islands. It is handsome and well built; provisions of all kinds are plentiful, and it is one of the most interesting and attractive to the boys; the only drawback is the heat and dampness of the climate, which even in winter render it uncomfortable and malarious.

Pratique is given by the harbor master.

There is a governor to be visited. No salutes are returned, the English troops formerly quartered on this island having been withdrawn.

The United States is represented by a consul and vice-consul. The most convenient anchorage lies due west of the light-house on the jetty, in 4 to 5 fathoms.

The Gulf of Paria is one of the largest and finest bays in the world, and presents exceptionally good facilities for exercising training ships, especially under sail. There is a nearly uniform depth of 12 to 13 fathoms over the whole area, enabling vessels to anchor anywhere. This harbor offers special facilities for target practice with great guns. Training ships can fire the allowance for first sea practice to great advantage in this bay.

SAINT LUCIA, W. I.

Castries, the capital, situated at the head of the bay of the same name, can not be reached under sail. It is the principal coal depot in the West Indies, offering special advantages both in price and in facilities for taking coal.

The harbor master meets vessels outside, gives pratique, and berths them at mooring buoys, free of charge.

There is an administrator to be visited. Salutes are not returned. The United States is represented by a vice-consul, who is also the principal coal merchant.

MARTINIQUE, W. I.

Port de France, the capital, is the military and naval headquarters of the French West Indies, and is inhabited almost entirely by officials and their dependents. The town is not overclean, the houses old and dilapidated, the climate moist and unhealthy, and the rainfall comparatively heavy, even in winter. For these reasons this place and St. Pierre, the commercial port of the island, should be avoided by training vessels. The high mountains to windward of these ports cut off the trade winds and render it very difficult to reach them under sail.

The most convenient anchorage lies about one-third mile northwest by west of the light-house on Fort au France, in 5 fathoms.

There is a governor and commander of forces to be visited. At Port de France salutes are returned. The American consul lives at St. Pierre, and can be communicated with by telephone. He forwards the ship's mail by the coasting steamer connecting the two ports.

Pratique is given by the health officer upon presentation of a clean bill of health.

ST. KITTS, W. I.

Basse Terre, the capital, is one of the coolest, cleanest, and healthiest of the West Indian ports. The bay is large and well sheltered, the climate comparatively dry, and the winds moderate and steady; and because of the hospitality and good will of the administrator in offering special facilities and accommodations to training ships, a month or more of the winter cruise can be advantageously spent here.

Provisions are good and plentiful, and fresh water can be taken from the pipe at the end of the wharf free of charge.

The administrator readily accords permission to land the battalion under arms for drill and target practice, and the bay offers good facilities for boat exercise under sail.

There is an administrator to be visited; salute, thirteen guns. Salutes are returned. The United States is represented by a vice-consul.

The most convenient anchorage is south of the wharf, in from 5 to 6 fathoms.

Pratique is furnished by the harbor master upon the presentation of a clean bill of health.

ST. CROIX, W. I.

Fredericksted, the port usually visited, lies in an open bay on the sheltered side of the island. It is a clean, healthy town, and can be reached from the northward with little difficulty under sail.

The place presents no particular attractions other than its excellent climate and its frequent mails from the United States.

The Danish lieutenant in command of the garrison acts as captain of the port, and gives pratique to vessels upon the presentation of a clean bill of health.

The most convenient anchorage is found abreast the wharf, in 5 to 6 fathoms of water.

The governor resides at Christiansted six months of the year and at St. Thomas the other six. It is not customary to visit him while at St. Croix. Salutes are returned.

The United States is represented by a vice-consul.

ST. THOMAS, W. I.

St. Thomas, the headquarters of the Danish West Indies, is a clean, healthy, attractive port, usually visited for the purpose of replenishing the ship's stores. Sailing vessels have no difficulty in entering or leaving the harbor.

The harbor master meets vessels outside, gives pratique, and berths them at convenient anchorages, free of charge.

There is a governor to be visited. Salutes are returned. The United States is represented by a consul and vice-consul.

SAN JUAN, P. R.

Leaving St. Thomas or Santa Cruz for San Juan, vessels should spend four or five days in the sheltered waters east of Porto Rico, between it and Culebra Island, for target practice with great guns. The battalion can be landed for drill and target practice with small arms from one of the many convenient anchorages surrounding it.

San Juan is a clean, healthy port, handsome and well built, and full of interest for the apprentices. Sailing vessels enter with

difficulty, owing to the narrowness of channel at the mouth of the bay and the direction of the trade winds. It can be managed, however, with the assistance of a pilot and by taking advantage of favorable slants, which usually occur in the early morning.

Convenient anchorage can be found in the inner harbor directly off the naval arsenal, in 4 fathoms.

The authorities to be visited are the commandant of the naval station, the governor of the island, and the commander of the forces. Salutes are returned.

The harbor master gives pratique to vessels presenting a clean bill of health.

LA GUAYRA.

Standing to the southward from Porto Rico, La Guayra is a convenient port to visit. The fine mountain scenery, the close proximity of Caracas, the convenient harbor moorings, and the politeness of the officials render it an attractive place.

The harbor master meets incoming men-of-war, berths them at mooring buoys inside the breakwater, and gives pratique to vessels presenting a clean bill of health.

The "Pack Saddle," a curved indentation on the summit of the high mountains resembling a saddle, is a conspicuous landmark, and lies just over La Guayra.

The collector of the port is the principal resident official; he is not entitled to a salute. Salutes are returned.

The United States is represented by a consul and vice-consul.

The minister resides at Caracas, and the arrival of the ship can be reported to him by telephone from the consul's office.

CURAÇOA.

The island of Curaçoa possesses peculiar and interesting features, which render it an attractive port. Willemstad, the capital, is a clean, healthy port, the residence of the governor and principal military authorities.

The channel being well marked, steamers can proceed directly through the canal into Santa Ana Harbor and anchor without the assistance of a pilot.

There is a governor to be visited. Salutes are returned. The United States is represented by a consul.

The best anchorage is in the Schottegat, near the entrance to the canal, in from 10 to 12 fathoms.

GUANTANAMO BAY.

From Curaçoa or La Guayra ten days can be profitably spent making the passage to Guantanamo.

The climate in winter is cool and dry, and the water being sufficiently bold for vessels to anchor close inshore, excellent facilities are offered for landing parties.

Fresh provisions cannot be obtained nearer than Caimanera, in the upper harbor.

Vessels can anchor in smooth water anywhere inside of Fisherman's Point within a few hundred yards of the shore.

KINGSTON, JAMAICA.

Kingston, the capital, is a large, handsome city, noteworthy for its excellent climate and its good sanitary condition. The bay is well sheltered and affords excellent opportunities for boat exercise. Permission to land the battalion for drills and target practice at Port Royal can be obtained from the commodore commanding the naval station.

There is a governor and general commanding the forces to be visited at Kingston and the commodore of the naval station at Port Royal.

Salutes are fired at Port Royal. Men-of-war often anchor there and make the official visits before proceeding up to Kingston in order to save the long trip from the city. Vessels making a stay at Port Royal are permitted to tie up to one of the mooring buoys off the navy yard.

The United States is represented by a consul and vice-consul.

Pratique is given by the health officer upon presentation of a clean bill of health.

The most convenient anchorage is directly off the boat landing, in 6 or 7 fathoms, at a point about 200 yards to the westward of the mooring buoy for mail steamers.

KEY WEST.

Key West is a healthy, attractive port in winter, easily accessible. It is usually visited by training ships in order to replenish stores. The harbor is smooth and spacious, and affords good opportunities for instruction in boat sailing. Coal and supplies of all kinds can be obtained and minor repairs effected at the United States naval station.

Florida Bay and the western coast of Florida to the northward of Key West affords unsurpassed facilities for target practice with great guns; in fact, the whole neighborhood is, in winter, well adapted by climate and situation as a drill ground for training ships.

A health officer from the marine hospital gives pratique. Vessels coming from the West Indies after April 1 are subject to five days' quarantine.

A convenient anchorage can be found in 4 fathoms at a point to the southward and westward of Buoy No. 15.

GARDINERS BAY.

Returning in the spring from the winter's cruise in the West Indies, Gardiners Bay presents superior advantages for the third great gun target practice and the final drills and exercises preliminary to inspection.

Training vessels can anchor in Bostwick Bay, under Gardiners Island, in $4\frac{1}{2}$ fathoms, within 100 yards of the shore, enabling landing parties to be sent on shore with the least possible loss of time. A week could be profitably spent here perfecting the drills, examining the boys, and completing arrangements for transferring them to the receiving ships.

Respectfully submitted.

J. J. HUNKER,
Commander, U. S. Navy, Commanding

“BAILEY MEDAL” FOR APPRENTICES.

SPECIAL CIRCULAR }
No. 30. }

NAVY DEPARTMENT,
Washington, D. C., April 20, 1897.

1. The “Bailey Medal,” instituted by the late Rear Admiral Theodorus Bailey for the purpose of inciting the apprentices of the United States Navy to greater effort in acquiring proficiency in their duties, will be awarded to one apprentice annually.
2. After each practice cruise the captain of each of the training ships shall report in writing to the commanding officers of the training stations to which they are attached the names and

records, including target records, of the apprentices satisfactory in obedience, industry, and conduct, and most distinguished for skill in their duties in a man-of-war.

3. The commanding officers of the training stations shall appoint boards of three officers each, who shall consider the records and subject the apprentices named to an examination of a purely practical nature, as shown in the following table, with weights to be assigned to each, the marks to be on a scale of 50:

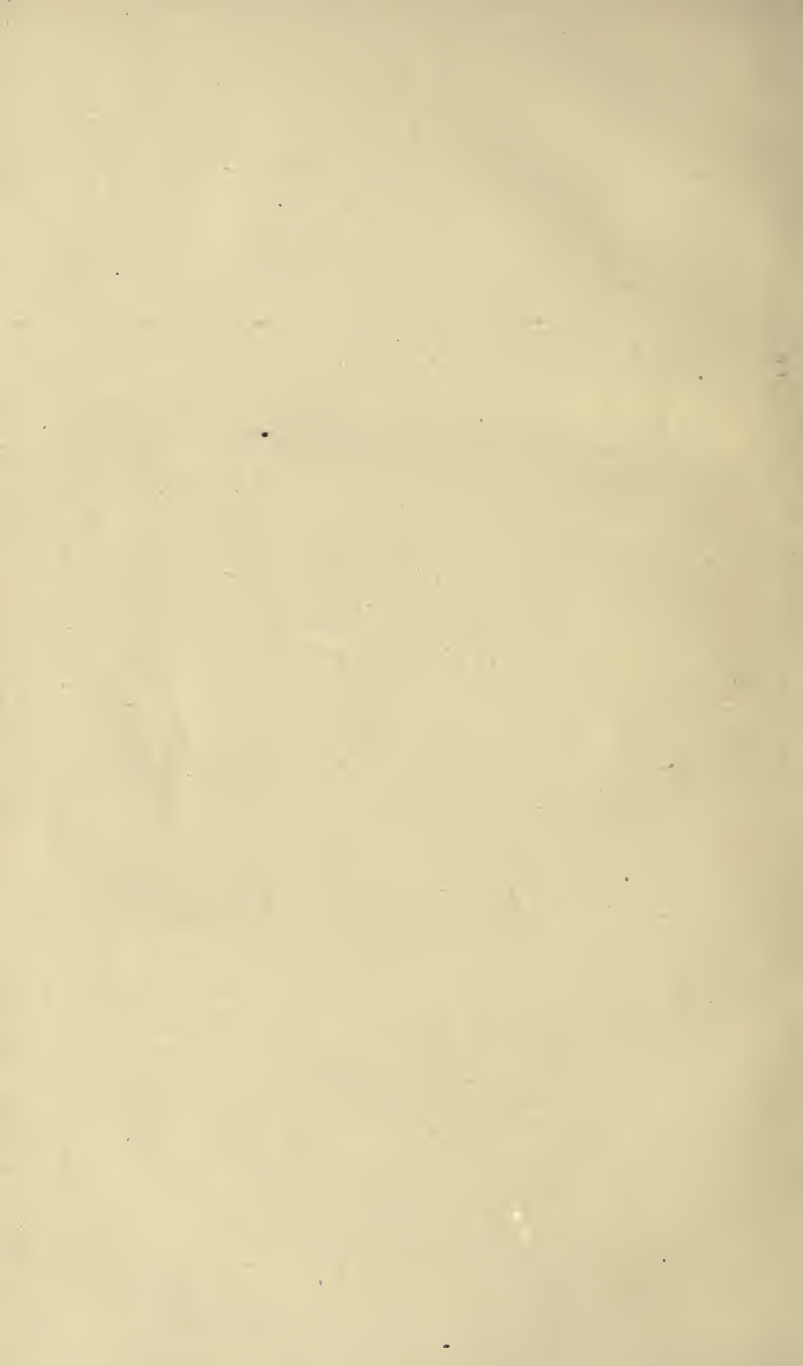
Knotting and splicing hemp and wire.....	50
Sailmaking.....	50
Heaving lead.....	50
Heaving log.....	25
Signals.....	50
Exercise as captain of gun, main battery.....	75
Exercise as captain of gun, secondary battery.....	50
School of soldier.....	75
Great-gun target firing.....	50
Small-arm target firing.....	50
Sword exercise.....	25
Swimming.....	25
Sewing.....	25
Knowledge of his accounts with paymaster.....	25
Condition of clothing.....	25
General conduct and bearing.....	50
Total.....	700

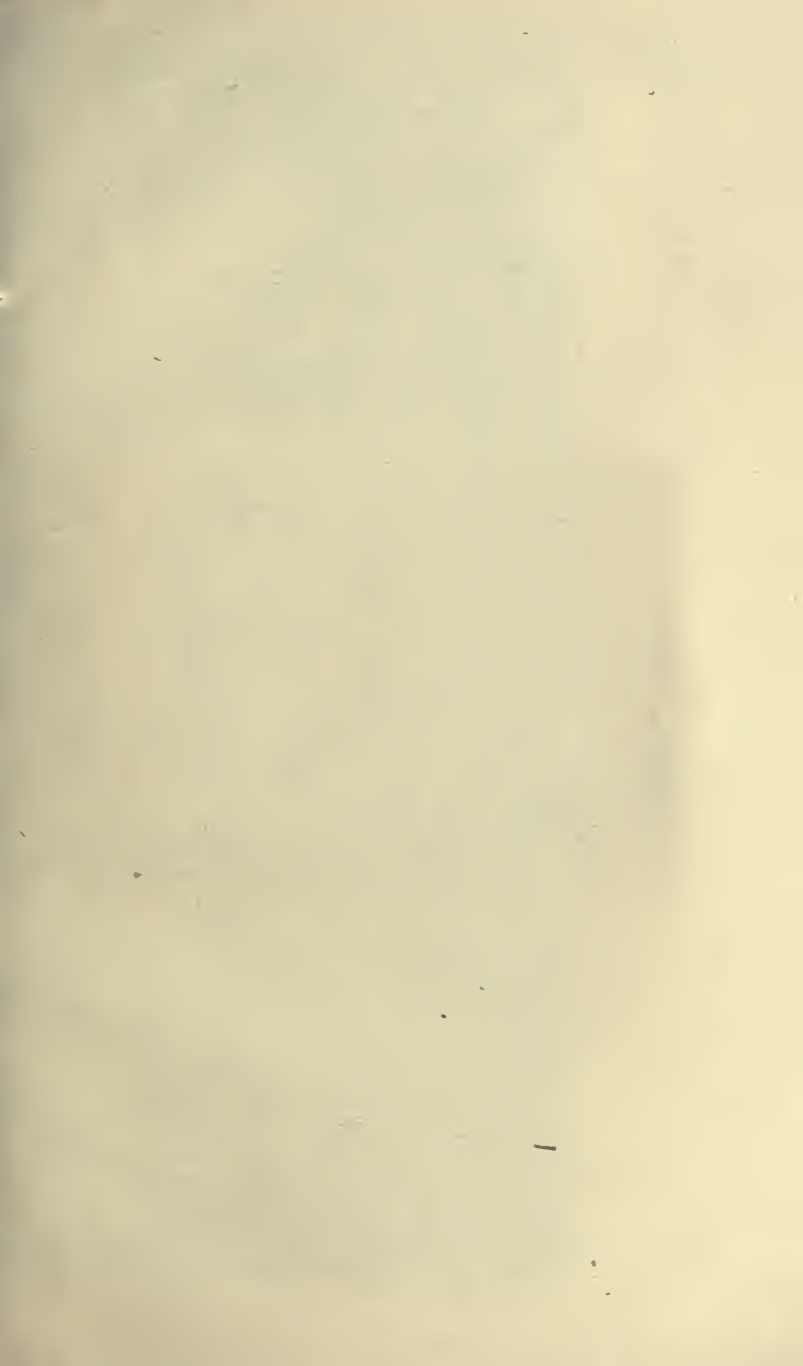
4. The results in detail of each of these examinations and the recommendations of the boards shall be forwarded to the Department, and the apprentice having the highest percentage shall receive the medal, the award to be made to the apprentices of the Atlantic and Pacific coasts in alternate years, so that after the first year the award shall be made upon the markings of the two years preceding the date of the award.

5. On the 31st day of December of each year the medal will be awarded, beginning with the Atlantic Coast.

JOHN D. LONG,
Secretary.







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