Boilermaker, Engine Smith. Occasionally a few Pattern Makers and Moulders are entered.

Age.-21 to 28 years.

PHYSICAL STANDARD

Height. 5 ft. 3 in.

Chest. 34 in.

Eyesight.—6/9 both eyes together, worse eye not less than 6/18. Colour vision approximately Grade II.

SUBJECTS OF EXAMINATION

Educational.—To read and write, and work the first four rules of arithmetic, simple and compound, vulgar and decimal fractions, and simple interest.

Practical.—A practical examination for the above-mentioned trades, details of which can be obtained from any Recruiting Staff Officer. R.N. and R.M.

A candidate who holds a Board of Trade Certificate as 1st Class or 2nd Class Engineer, and can produce properly attested Certificates of character and ability from the works in which he has learnt his trade, and from the Officers of the Ships in which he has served, may be entered without any further professional examination.

Engine-room Artificers on entry are expected to equip themselves with a minimum set of tools at their own expense in accordance with the

general custom of their respective trades.

Pay and Position.—Engine room Artificers entered as Acting Engineroom Artificers, 4th Class, rank as Petty Officers, a position that carries

with it many privileges.

On being granted a Certificate that they are capable of taking charge of a watch in the Engine-room of a small ship, or in any case on advancement to the rating of Engine-room Artificer, 3rd Class, they rank as Chief Petty Officers.

As Engine-room Artificer.

Pay 568

.. 56s. to 70s. a week (excluding allowances mentioned on page 13).

An allowance of 7s. a week is paid to men obtaining a certificate of

capability of taking a watch in the engine-room of a small ship.

After 6 years' approved service, including 3 years' service afloat, and if qualified by examination, they become eligible for advancement in vacancies to the rating of Chief Engine-room Artificer, 2nd Class, and subsequently after 6 years to Chief Engine-room Artificer, 1st Class, with the following rates of pay:—

As Chief Engine-room Artificer

Chief Engine-room Artificer, 2nd Class. 73 6 . . Chief Engine-room Artificer, 1st Class . . 80 6 . . A week, excluding allowances mentioned

A further allowance of 7s. a week is paid to Chief Engine-room Artificers holding a certificate of capability of taking charge of the engines of a small ship, and allowances as Senior Engineer, and for charge of machinery, may be earned in certain circumstances.

PAY OF ENGINE-ROOM ARTIFICERS IN THE ROYAL NAVY

Anticipated emoluments for a Reasonably Successful Career

Age.	Rating.	Promotion, Allowances, etc., Increments.	Total Weekly Emoluments.
21	P.O.	Entry on Acting Province ages AutiGues 4th	s. d.
		Entry as Acting Engine-room Artificer, 4th Class, 56s	56 0
23	C.P.O.	Granted Engine-room Watch Keeping certificate, + 7s. and C.P.O. Rating Married and granted Marriage allowance, +	63 0
24	C.P.O.	17s	80 0
24	C.F.O.	Rated E.R.A., 3rd Class, + 7s. Awarded 1st Good Conduct Badge, + 1s. 9d First child born—Marriage allowance increased	88 9
00	CDO	to 22s	93 9
26	C.P.O.	to 25s	96 9
28	C.P.O.	Rated E.R.A., 2nd Class, + 3s. 6d	100 3
29	C.P.O.	Awarded 2nd Good Conduct Badge, + 1s. 9d.	102 0
30	C.P.O.	Third child born—Marriage allowance increased	
	014.101	to 27s	104 0
33	C.P.O.	Re-engages for Pension—Rated E.R.A., 1st	
		Class, 3s. 6d	107 6
34	C.P.O.	Rated C.E.R.A., 2nd Class, + 3s. 6d.—Granted	
		E.R. Charge certificate, + 7s. Awarded	
	1	3rd Good Conduct Badge, + 1s. 9d	119 9
36	C.P.O.	Awarded Long Service and Good Conduct	
		Medal and Gratnity of £20	
40	C.P.O.	Rated C.E.R.A., 1st Class, + 7s	126 9
43	C.P.O.	Discharged to Pension (approx. £87 per annum)	

Excellent prospects exist for promotion to Warrant Engineer for the right type—such promotion being by competitive examination and recommendation. The average age for promotion to Warrant Engineer is 32 and the pay rises by stages through the rank of Commissioned Engineer to approximately £9 a week in the rank of Lieutenant (E) which can be attained at about 46.

Warrant Officers and Commissioned Officers from Warrant Rank may serve on the Active List till the age of 50, when they retire with Retired pay varying from £100 to a sum of £270 for those that attain Lieutenant's Rank.

11.-- Engine-room Artificers, 5th Class

Candidates between the ages of $19\frac{1}{2}$ and 21 years may be entered as Engine-room Artificers, 5th Class, under the following conditions:—

Physical Standard

Height. Chest. 5 ft. 2 in. 32 in.

Eyesight.—6/9 both eyes together, worse eye not less than 6/18. Colour vision Grade 11.

Trade Qualifications.—Engine Fitter, Fitter and Turner, Fitter, Boilermaker, Coppersmith or Engine Smith.

Educational Qualifications.—As for Acting E.R.A., 4th Class, direct entry.

Practical.—Candidates will be accepted only if they attain a standard which makes it clear that they will be suitable for the rating of Acting E.R.A., 4th Class, after not less than 12 months' and not more than 18 months' service as E.R.A., 5th Class.

Pay.—39s. 1d. a week (excluding allowances mentioned on page 13). Advancement to Acting E.R.A., 4th Class, will be made by the Commanding Officer, if recommended by the Engineer Officer, after completion of 12 months' service over the age of 19½, as E.R.A., 5th Class. Men who have already attained the age of 21 when they are advanced to Acting, 4th Class, may have such advancement antedated to the date of reaching that age. Their position subsequently will be the same as that of candidates who enter as Acting E.R.A., 4th Class.

Electrical Artificers

Electrical Artificers are employed on work in connection with torpedoes as well as the general electrical equipment of ships.

I .- ACTING ELECTRICAL ARTIFICERS, 4TH CLASS

Candidates for entry as Acting Electrical Artificers, 4th Class, must be competent Fitters, or Fitters and Turners, or Instrument Makers.

Age.—21 to 28 years.

Physical Standard

Height
5 ft. 3 in.

Chest 34 in.

Eyesight.—6/12 both eyes together, worse eye not less than 6/24. Colour vision approximately Grade II.

Nature of Examination

Educational.—As for Engine-room Artificers (see page 21).

Practical.—A practical examination in Fitting, or Fitting and Turning, or Instrument Making, details of which can be obtained from any Recruiting Officer.

Electrical Artificers on entry are expected to equip themselves with a minimum set of tools at their own expense in accordance with the general custom of their respective trades.

Pay and Position.—Electrical Artificers entered above 5th Class (see below) rank as Petty Officers, a position which carries with it many privileges. On advancement to the rating of Electrical Artificer, 3rd Class, or above, they rank as Chief Petty Officers.

As Electrical Artificer

After 6 years' approved service, of which three must have been actually afloat, and if qualified by examination, they become eligible for advancement in vacancies to Chief Electrical Artificer, 2nd Class, and subsequently after 6 years to Chief Electrical Artificer, 1st Class.

As Chief Electrical Artificer

Chief Electrical Artificer, 2nd Class
Chief Electrical Artificer, 1st Class
Chief Electrical Artificer, 1st Class
Solution
Soluti

Electrical Artificers are employed on aircraft work of the Fleet Air Arm as well as in ships of the Fleet.

For promotion to Warrant rank and above, see pages 37 and 38.

II .-- ELECTRICAL ARTIFICERS, 5TH CLASS

Candidates between the ages of 19½ and 21 years may be entered as Electrical Artificer, 5th Class, under the following conditions:—

Qualifications.—Must be able-bodied men with at least 3 years' experience as Fitter, or Fitter and Turner, or Instrument Maker, and be able to pass the required Educational and Trade Tests.

Physical Standard.—As for Engine-room Artificer, 5th Class (see page 22).

Eyesight.—As for Acting Electrical Artificers, 4th Class (see page 23). Educational Test.—As for Engine-room Artificers (see page 21).

Practical Test.—Practical examination in Fitting, or Fitting and Turning or Instrument Making.

Electrical Artificers, 5th Class, are eligible for advancement to Acting Electrical Artificer, 4th Class, after completion of 12 months' service over the age of $19\frac{1}{2}$, provided they have finished their training and are recommended. Men who have already attained the age of 21 when they are advanced to Acting, 4th Class, may have such advancement antedated to the date of reaching that age, or exceptionally, $20\frac{1}{2}$. Their position subsequently will be the same as that of candidates who enter as Acting Electrical Artificer, 4th Class.

Ordnance Artificers

Ordnance Artificers are employed in the upkeep of all guns and gun mountings, hydraulic machinery, gun sighting and fire control instruments; this includes clockwork, electrical and optical work, and general ordnance work, both of ships of the Fleet and aircraft of the Fleet Air Arm.

I.—ACTING ORDNANCE ARTIFICERS, 4TH CLASS

Candidates for entry as Acting Ordnance Artificers, 4th Class, must be completed Fitters or Fitters and Turners.

Age.—21 to 28 years.

Physical Standard

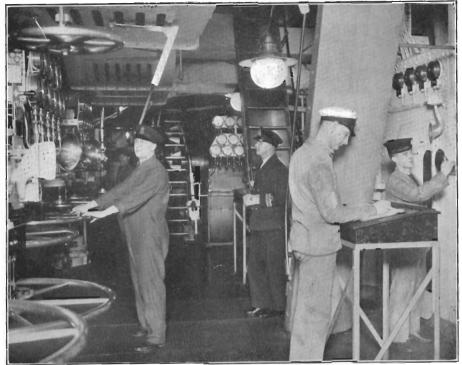
Height. Chest. 5 ft. 3 in. 34 in.

Eyesight.—6/12 both eyes together, worse eye not less than 6/24. Colour vision approximately Grade II.

Nature of Examination

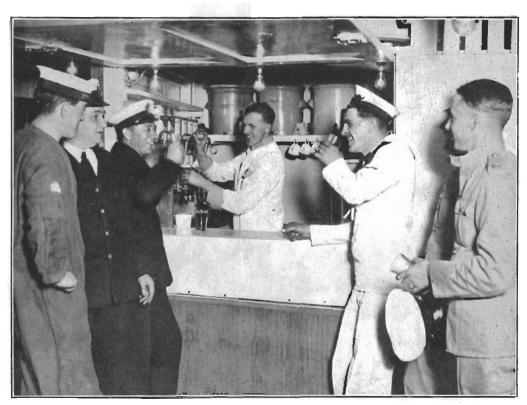
Educational.—As for Engine-room Artificers (see page 21).

Practical.—A practical examination in Fitting or Fitting and Turning, including Screw-cutting, details of which can be obtained from any Recruiting Officer.



[Photo by Central Press.

IN THE ENGINE ROOM OF H.M.S. "HOOD" ENGINEER OFFICER, ARTIFICERS AND STOKER



[Photo by London News Agency Photos, Ltd.

THE SHIP'S CANTEEN

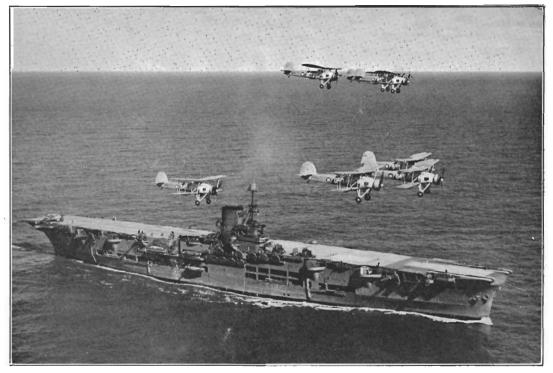
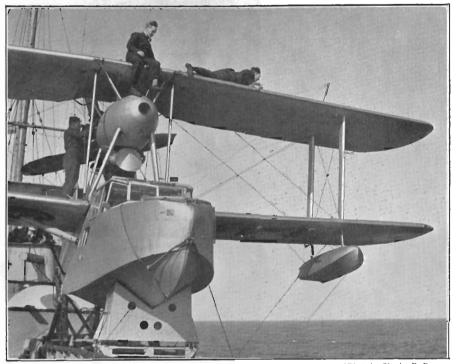


Photo by Charles E. Brown,

Aircraft in Formation Flying over H.M.S. "Ark Royal"



[Photo by Charles E. Brown.

AIR FITTERS AND RIGGERS AT WORK

Ordnance Artificers on entry are expected to equip themselves with a minimum set of tools at their own expense in accordance with the general custom of their trade.

Pay, Position and Promotion

As for Electrical Artificers (see page 23).

II.—ORDNANCE ARTIFICERS, 5TH CLASS

Candidates between the ages of 19½ and 21 years may be entered as Ordnance Artificer, 5th Class, under the following conditions:—

Qualifications.—Must be able bodied men of good character with at least 3 years' experience as Fitter, or Fitter and Turner.

Physical Standard.—As for Engine-room Artificer, 5th Class (see page 22).

Eyesight.—As for Acting Ordnance Artificers, 4th Class.

Educational Test.—As for Engine-room Artificers (see page 21).

Practical Test.—Practical examination in Fitting or Fitting and Turning; must show promise of making an efficient Acting Ordnance Artificer, 4th Class, on reaching age of 21.

Ordnance Artificers, 5th Class, are eligible for advancement to Acting Ordnance Artificer, 4th Class, after completion of 12 months' service over the age of 19½, provided they have finished their training and are recommended. Men who have already attained the age of 21 when they are advanced to Acting, 4th Class, may have such advancement antedated to the date of reaching that age, or exceptionally, $20\frac{1}{2}$. Their position subsequently will be the same as that of candidates who enter as Acting Ordnance Artificer, 4th Class.

Air Artificers Air Fitters Air Riggers

The work of these branches covers general maintenance duties on aircraft of the Fleet Air Arm. Air Fitters are employed on the maintenance of the engines of aircraft: Air Riggers are employed on the maintenance of the air frames of aircraft: Air Artificers are responsible for duties on engines and air frames.

There is no direct entry of Air Artificers, who are selected from Air Fitters and Air Riggers who have undergone special training.

Candidates for entry as Air Fitter or Air Rigger must be competent workmen who have received not less than 2½ years' training in one of the following trades:—

Ground Engineer (Civil Aviation).
General Fitter.
Millwright.
Jig and Tool Fitter.
Engine Fitter.
Mcchanical Transport Fitter.
Engine Turner, etc.
Blacksmith.
Coppersmith.
Mctal Worker.

Instruction and training for the specialised work of the Fleet Air Arm will be given after entry.

Age.— $17\frac{1}{2}$ to 28 years.

Physical Standard.—As for Scamen (special service), see page 15.

Eyesight.—As for Electrical Artificers, see page 23.

Educational Examination.—The same as for Direct Entry Artificers.

Practical Examination.—On the work of the candidate's trade, as in list above. Details can be obtained from any recruiting office.

Air Fitters and Air Riggers are required to equip themselves with a minimum set of tools, at their own expense.

Engagement.—Air Fitters and Air Riggers are entered on Special Service Engagements, for seven years' active service in the Royal Navy from the date of entry or the age of 18, whichever is the later, followed by service in the Royal Fleet Reserve, to complete a total of 12 years.

Advancement.—Candidates are entered as Air Fitters or Air Riggers according to their previous trade, and after training will be employed at Naval Air Stations on shore or in H.M. Ships. During the first 2 years of their service, Air Fitters and Air Riggers qualify for advancement to Leading Air Fitter or Leading Air Rigger, by recommendation of their Commanding Officer, and opportunities will be afforded for selected men who are willing to sign a continuous service engagement for 12 years, to be given a further course of training with the view to transfer to the rating of Air Artificer, 4th Class.

Men who do not wish to become Air Artificers, or who fail to qualify for such transfer are eligible for advancement to Petty Officer Air Fitter and Petty Officer Air Rigger, and to the Chief Petty Officer rating, by roster, in vacancies.

Pay.—The rates of pay in the Air Fitter and Air Rigger Branch are:—

The rates of pay in the Air Artificer Branch are:

	s.	d.	
Air Artificer, 4th class (Petty Officer)	56	0)	A week,
Air Artificer, 3rd class (Chief P.O.)	63	0	excluding
Air Artificer, 2nd class (Chief P.O.)	66	6	allowances
Air Artificer, 1st Class (Chief P.O.)	70	0 (mentioned
Chief Air Artificer, 2nd Class (Chief P.O.)	73	6	on page 13.
Chief Air Artificer, 1st class (Chief P.O.)	80	6)	

Advancement to Air Artificer, 3rd class, 2nd class and 1st class, is by length of service, the latter rating being dependent on re-engagement to complete time for pension. Advancement to Chief Air Artificer, 2nd class, is in vacancies, subsequent advancement to Chief Air Artificer, 1st class, taking place after 6 years' service as Chief Air Artificer, 2nd class.

Applications.—Applications for entry into the Royal Navy as Air Fitter or Air Rigger should be made personally or by letter to the nearest R.N. Recruiting Office. Candidates are required to produce a certificate of birth and satisfactory references as to character.

ARTIFICER APPRENTICES

Engine-room: Electrical: Ordnance

A limited number of candidates for training for the rating of Engineroom Artificer, Electrical Artificer or Ordnance Artificer in the Royal Navy will be entered twice a year, in January and August, on the results of examinations held in the preceding October and March respectively.

Candidates for examination in October *must* be not less than 15 years of age on the 1st January following the date of the examination and must not have attained their 16th birthday on that 1st January. Candidates for examination in March *must* be not less than 15 years of age on the 1st May following the date of the examination and must not have attained their 16th birthday on that 1st May. No exceptions to these rules are allowed. Whilst under training they are paid 5s. 3d. to 14s. a week.

Successful candidates will be examined by a Naval Medical Officer to see that they come up to the physical standard required of candidates for the Royal Navy in every respect. Eyesight 6/9 each eye tested separately. Colour vision Grade II.

Before being accepted, they have to enter into an engagement to

serve with the Fleet for 12 years from the age of 18.

The long period of training in the Mechanical Training Establishment is a very valuable supplement to a general education, with exceptional opportunities of physical development and technical instruction.

At the expiration of the course of training, and after passing the required examination, they will be rated Artificer, 5th Class (leading rate) of their respective branches, and will be paid 39s. 1d. a week.

An Artificer, 5th Class, may be recommended for advancement to Acting Artificer, 4th Class, after attaining 1 year's seniority, or earlier

in special cases.

Specially selected Artificer Apprentices on completion of 2 years' service in the Training Establishment will be promoted to Naval Cadet and appointed to the sea-going training cruiser for 1 year's training before joining the Royal Naval Engineering College at Keyham as Midshipmen (E), to undergo a course of instruction with a view to becoming Officers of the Engineering Branch.

Full particulars of the method of entry and conditions of service may be obtained on application to the Secretary of the Admiralty, London,

S.W.1.

Naval Artificer Apprentices

In addition to the normal entry of Artificer Apprentices for training in the Mechanical Training Establishment, a limited number of Naval Artificer Apprentices will be entered from time to time for training as Engine-room, Electrical, and Ordnance Artificers. The age limits are the same as for Artificer Apprentices (see above). They will be trained in the Dockyards in the same way as Dockyard Apprentices, and their

pay and conditions of service for the first four years will be the same as for Dockyard Apprentices. After 4 years they will be drafted to sea as Artificers, 5th Class, to complete their training.

Before being accepted they must be found medically fit for the Royal Navy, and enter into an engagement to serve in the Fleet for

12 years from the age of 18.

Full particulars may be obtained on application to the Secretary of the Admiralty, London, S.W.1.

This method of entry is suspended temporarily.

Air Apprentices

Air Apprentices are entered twice a year from the same examinations (October and March) as Artificer Apprentices (see page 27).

The general conditions of entry, physical standard and terms of

engagement are similar to those of Artificer Apprentices.

Air Apprentices under a three-year apprentice training receive

pay from 5s. 3d. to 10s. 6d. a week.

On passing out from the training establishment they are rated as Air Fitters (Engines), Air Fitters (Electrical), Air Fitters (Ordnance), or Air Riggers, according to their trade. The pay of an Air Fitter is 26s. 3d. a week.

After two years' service at sea, 50 per cent. of the Air Fitters and Air Riggers are given an opportunity of further training to qualify for advancement to Artificer rating. A further 10 per cent. selection for such training is made later.

Specially selected Air Apprentices are eligible for appointment as Midshipmen with a view to their becoming officers of the Engineering Branch.

Full particulars of the method of entry and conditions of service may be obtained on application to the Secretary of the Admiralty, London, S.W.1.

Shipwrights

Candidates must be competent workmen.

Age.—19 to 28 years.

Physical Standard.—As for Seamen (Special Service) (see page 15).

Eyesight.—6/12 both eyes together, worse eye not less than 6/24. Colour vision approximately Grade II.

Nature of Examination

Educational.—As for Acting Engine-room Artificer, 4th Class (see page 21).

Practical.—To possess a knowledge of wood, iron, and steel shipbuilding, and to be capable of using the ordinary tools for each efficiently. To know the different parts of a boat and how to repair them.

Candidates under 21 are entered as Shipwrights, 5th Class (leading rates); candidates over 21 as Acting Shipwrights, 4th Class (Petty Officers). On advancement to the rating of Shipwright, 3rd Class, they rank as Chief Petty Officers.

Shipwrights, 5th Class, may, if recommended, be rated Acting Shipwrights, 4th Class, after 1 year's service or on reaching the age of 21.

Shipwrights on entry are expected to equip themselves with a minimum set of tools at their own expense in accordance with the general custom of their trade.

Pay					
	s.	d.	s.	d.	
Shipwright, 5th Class	39	1)
Acting Shipwright, 4th Class	56	0			A
Rising, if recommended, and of					A week,
satisfactory character, to—					excluding allowances
Shipwright, Ist Class	70	0			
Shipwrights are eligible for ad-					mentioned
vancement in vacancies to					on page 13.
Chief Shipwright with pay at	73	6 to	80	6	J

PAY OF SHIPWRIGHTS IN THE ROYAL NAVY
Anticipated Emoluments for a Reasonably Successful Career

Age.	Rating.	Promotion, Allowances, etc., Increments	Total Weekly Emoluments.
20 21 22 23 24	L.S. P.O. P.O. P.O. C.P.O.	Entry as Shipwright, 5th Class, 39s. 1d Rated Shipwright, 4th Class (Acting), +16s. 11d. Confirmed as Shipwright, 4th Class Awarded 1st Good Conduct Badge, + 1s. 9d Rated Shipwright, 3rd Class, + 7s	s. d. 39 1 56 0
26	C.P.O.	Married and granted Marriage allowance, + 17s First child born. Marriage allowance increased	81 9
27	C.P.O.	to 22s Second child born. Marriage allowance in-	86 9
28	C.P.O.	creased to 25s	89 9
31	C.P.O.	2nd Good Conduct Badge + 1s, 9d Third child born. Marriage allowance increased	95 0
		to 27s	97 0
33	C.P.O.	Rated Shipwright, 1st Class, + 3s. 6d. Awarded 3rd Good Conduct Badge, + 1s. 9d	102 3
35	C.P.O.	Awarded Long Service and Good Conduct Medal and Gratuity of £20	
38 42	C.P.O. C.P.O.	Rated Chief Shipwright, 2nd Class, + 3s. 6d Discharged to Pension (approx. £85 per annum)	105 9

Opportunities sometimes arise for a man, capable of passing the necessary technical examination, to advance direct to Chief Shipwright, 2nd Class, from ratings lower than Shipwright, 1st Class; provided that he has not less than 6 years' service in rates of Shipwright, 4th Class, and upwards. After 6 years' service as Chief Shipwright, 2nd Class, a man is rated as Chief Shipwright, 1st Class. This rate carries a further emolument of 7s. a week.

Warrant Rank.—Shipwrights can attain Warrant Rank (see page 37) with pay rising from 13s. 6d. to £1 3s. 6d. per day. Warrant Shipwrights may serve on the Active List till the age of 50, when they retire with Retired pay of about £200 a year, dependent on length of service as an Officer.

A few rise to the rank of Shipwright Lieutenant.

Service of Shipwrights in Dockyards.—Naval Shipwrights will be eligible for employment on the hired list of Dockyard Shipwrights on discharge from the Royal Navy after completing time for Naval Pension subject to their being found efficient and physically fit by the Dockyard authorities, and to the existence of vacancies.

Naval Shipwright Apprentices

Boys after passing successfully the Civil Service Educational Examination for Dockyard Apprentice, candidates for which *must* be between the ages of 15 and 16 years on the 1st day of August in the year in which they are examined, are eligible for entry in the Royal Navy for training in Dockyards as Naval Shipwright Apprentices, and, provided they are found medically fit for the Royal Navy, will be allowed to enter as such according to the position they occupy on the Examination List. Before being accepted they have to enter into an engagement to serve in the Flect for 12 years from the age of 18. Whilst under training they will receive pay at the rates laid down for Dockyard apprentices.

Successful candidates will be examined by a Naval Medical Officer to see that they come up to the physical standard required of candidates for the Royal Navy in every respect. Approximately normal vision is

required for entry as Apprentice.

Full particulars may be obtained on application to the Secretary of the Admiralty, London, S.W.1.

Blacksmiths

A Ship's Blacksmiths have their own workship with forge, anvil, etc. They keep the anchors and cables in efficient condition and assist in working them. The making and repair of shackles, stanchions, davits and iron and steel work of all kinds is their especial duty.

Candidates for entry as Blacksmiths must be good workmen at their trade.

Age.-19 to 28 years.

Physical Standard.—As for Scamen (Special Service) (see page 15).

Eyesight.—6/12 both eyes together, worse eye not less than 6/24. Colour vision approximately Grade II.

Nature of Examination

Educational.—(a) Writing an ordinary passage of English at dictation. (b) A simple paper on the first four rules in arithmetic, simple and compound.

Practical.—Must be able satisfactorily to weld together flat and round iron and to turn and weld an angle bar corner.

Candidates under 21 years of age are entered as Blacksmiths, 5th Class; candidates over 21, as Acting Blacksmiths, 4th Class (leading rates in each case). On advancement to the rating of Blacksmiths, 3rd Class, they rank as Petty Officers, and on advancement to the rating of Chief Blacksmith, as Chief Petty Officers.

Blacksmiths on entry are expected to equip themselves with a minimum set of tools at their own expense in accordance with the general custom of their trade.