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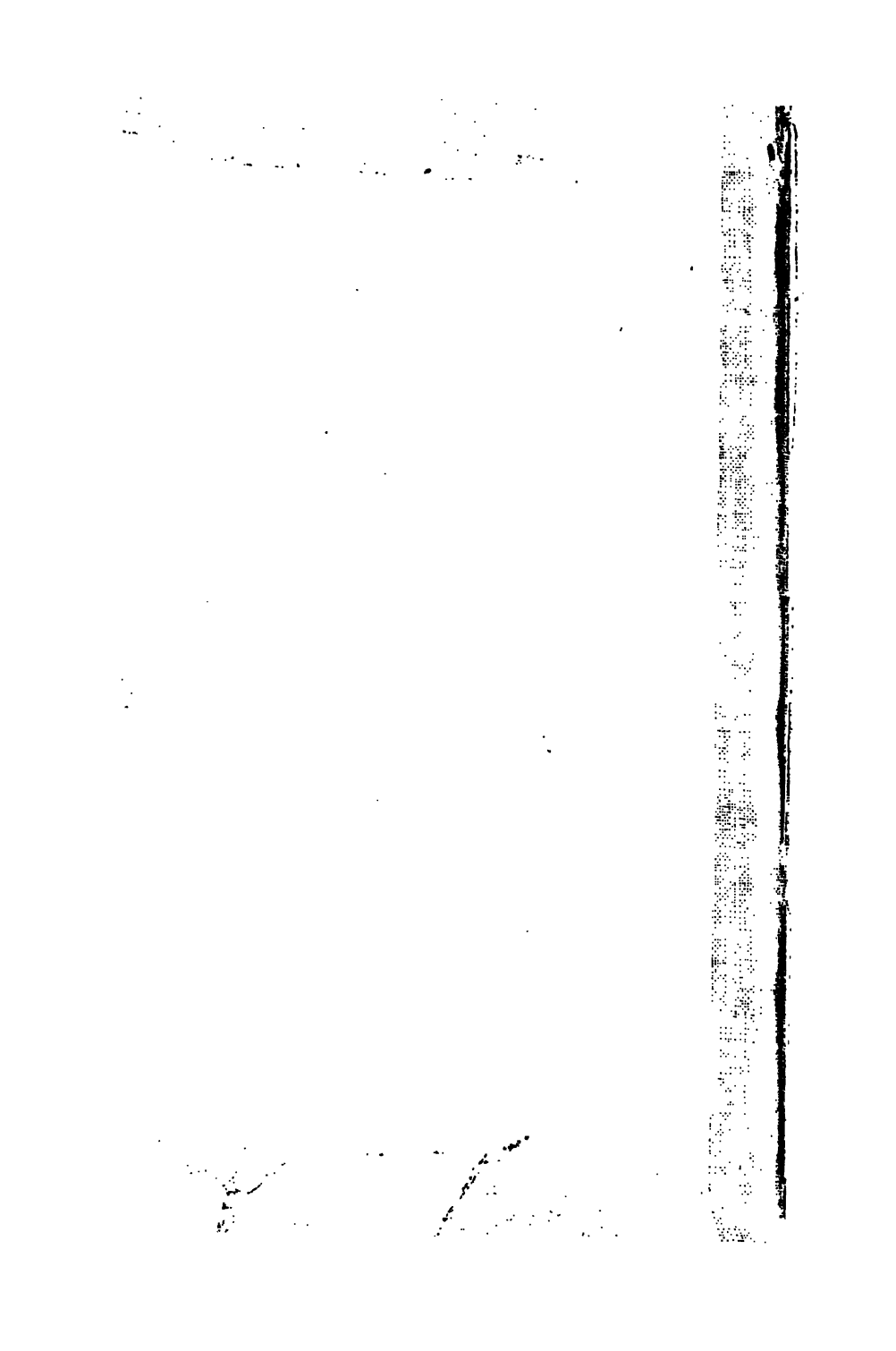
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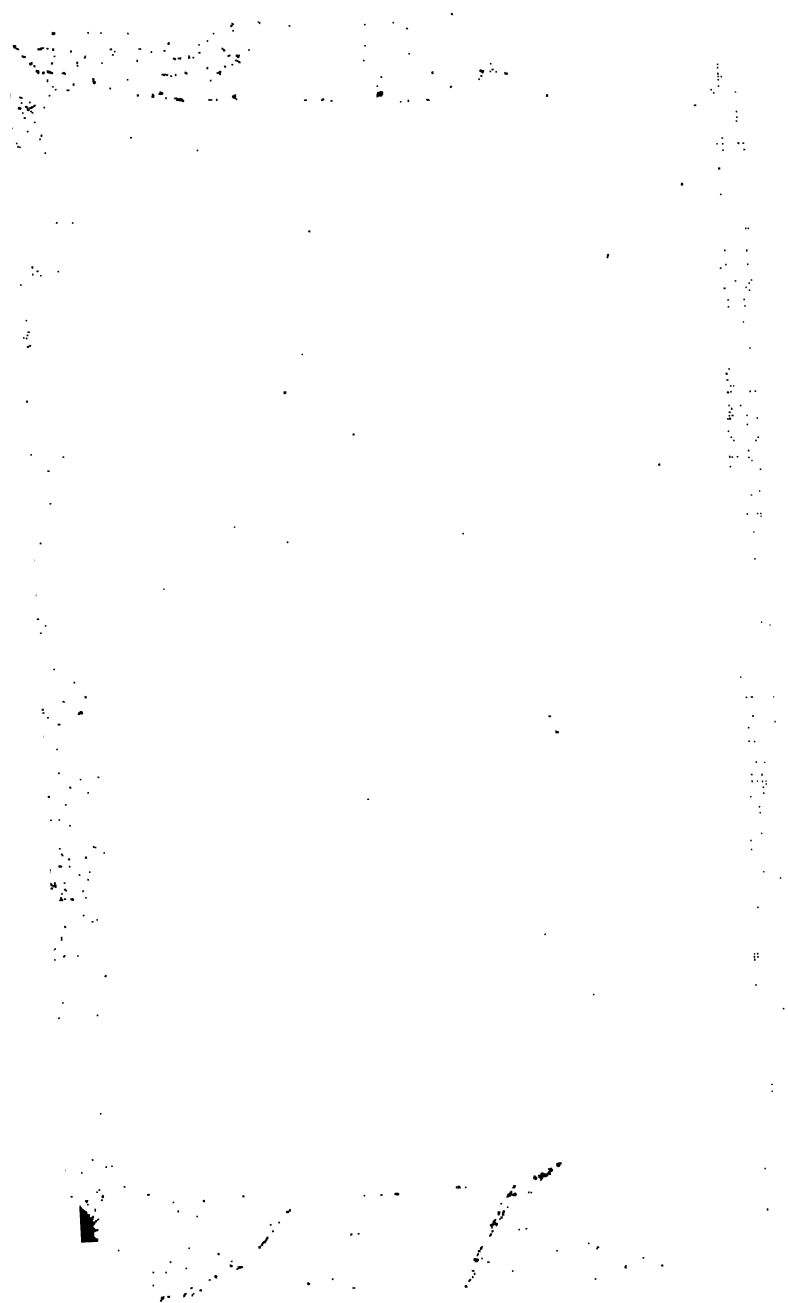
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# PROFESSIONS FOR BOYS

## AND HOW TO ENTER THEM

BY

M. L. PEHELL AND JAMES J. NOLAN

WITH A PREFACE BY THE

MOST REVEREND J. E. C. WELLDON, M.A., D.D.,

*Formerly Head Master of Harrow School, now Bishop  
of Calcutta and Metropolitan of India  
Chaplain in Ordinary to the Queen*

SECOND EDITION

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## PREFACE TO THE FIRST EDITION

THE choice of a profession is one of the questions that are brought most constantly before a schoolmaster's mind. How difficult it is and delicate he knows well. He looks upon the boys—his pupils—from day to day; he anticipates their future; it seems to him that this boy is fitted for one profession and that boy for another, but often it is a hard task to get the boys themselves to realize that they must decide, and decide speedily, what it is that they desire and aspire to be.

It may well be doubted if schoolmasters or parents have been careful enough to educate the young in the thought and view of the professions to which their youth is preparatory.

One difficulty has been that no existing book has afforded what may perhaps be called a conspectus of all such professions as are open to the young in the English-speaking world; none has set forth the laws, conditions, opportunities, emoluments and drawbacks of the professions. Young people have therefore chosen their professions in the dark or at haphazard or without an adequate sense of their own capabilities. They have made mistakes, and a mistake once made in the choice of a profession is hard to retrieve. For it is a duty in all men, or in most, to hesitate upon the verge of professional life and to ascertain beyond reasonable doubt that, on entering upon it, they do not make a false step.

▼

vi      PREFACE TO THE FIRST EDITION

The Author of this little book, for which I am permitted to write a preface, has been at the pains to collect much valuable information about professions. I do not know if the information is always accurate and complete, but I am safe in saying that it will be highly valuable to those whose office it is to guide the choice of the young and, not less, to young people themselves.

After all, however, it matters less what profession a man chooses than what is the spirit in which he chooses and pursues it.

“There is no office in this needful world  
But dignifies the doer, if done well.”

And that is perhaps, the only lesson which I would add, as a schoolmaster justly may, to the Author's interesting pages.

J. E. C. WELLDON.

*Harrow School,*  
*February 14, 1898.*

## NOTE TO THE SECOND EDITION

THE success of the first edition of "Professions for Boys" has been extremely satisfactory, and there can be no question but that the book has been found useful by a great number of persons who have hitherto had to look in vain for such a work. As soon as the publishers recognised the steady and general demand for "Professions for Boys," which very quickly exhausted the first impression, the present edition was put in hand; and it is to be hoped that an equally favourable reception awaits it.

The book has been increased by the addition of some twenty-two new articles on various professions, and great attention has been paid to the revision and completion of those which formed the first edition. All the information contained in the articles has been brought up to date, and has been either compiled from authoritative statements and sources of information, or revised by some person thoroughly qualified to express an opinion as to its accuracy and fulness. No trouble has been spared to make the information as complete as possible, as the value of the book must be judged by its accuracy; and the book as it now stands will be found essential by every parent who is anxious for the future of his sons.

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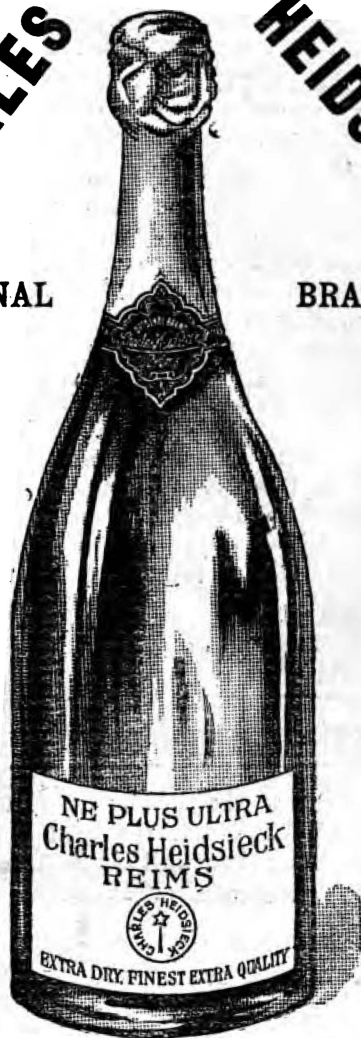
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**Part I**  
**HOME PROFESSIONS**

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# The Navy

## A.—NAVAL CADETS

DOES there exist a boy who at some period or other of his life does not want to go to sea, who does not make up his mind that a life on the ocean wave is the one and only profession to be considered? A love of the sea, of shipping, of the adventures to be met with in the roving life of a sailor, is inherent in our race. It is in the blood, a legacy of the old Norse and Danish vikings; it is what has gained for us our supremacy by sea from the time of Drake and Frobisher to the days of Nelson. Of all branches of seamanship nothing appeals to the boy of imagination like the Royal Navy, wherein he sees himself rising by rapid stages from the gun-room to the position of a full-blown admiral. True, this love of the sea is often transient, and when the real life, with its hardships and inconveniences, takes the place of the ideal sailor's life, the boy frequently admits that he has mistaken his vocation. In many cases, indeed, one voyage suffices to disenchant him, and he turns to work ashore with a satisfaction and energy that never would have been his had he not been allowed actual experience of the sea. The non-combatant branches of the Service, *e.g.*, the engineers, naval construction, and accountancy, are available for those who have to rely upon their brains, or who are not so fortunate as to obtain the nomination needed for the combatant branch.

Of qualifications, perhaps pluck and courage are the most necessary characteristics in boys who intend adopting the Navy as their profession; and it is above all things suitable

to that roving and restless spirit so often present in boys, which occasions so much uneasiness in parents and guardians, who shake their heads and fear that Jack will never settle to anything, but remain a ne'er-do-well. But this restless spirit must not be in conjunction with idleness or a paucity of brains, for intelligence and application are most essential to all who wish to make their way in the Navy. For such the merchant service is more suitable, although in this also the attainment of any important post is dependent on ability. Without ability, indeed, it is useless to expect success in any walk of life.

The first step to be taken in order to enter the Navy is to obtain a nomination. This may be obtained from the First Lord of the Admiralty, a flag officer, a commodore in chief command of a station, and a captain who has been six months appointed. The nomination having been obtained, an examination has to be passed. Examinations for the Navy are held three times a year, in March, July, and December, at London and Portsmouth. They are conducted by the Civil Service Commissioners (address: Victoria Street, Westminster, S.W.), and an entrance fee of £1 has to be paid. In no profession, perhaps, do candidates begin their training as young as in the Royal Navy, for the age of entry is between fourteen and fifteen-and-a-half. A testimonial of good conduct for the two previous years must be produced by the candidate, signed by his schoolmaster, tutor, or the clergyman of the parish. Here, as in the Army, a very severe medical examination has to be passed, perfect health and good physique being essentials. Among minor items squint are not permissible in either of the Services, and a great stress is laid upon the form of the feet and toes, and curvature of the latter is a disqualification. Mothers, therefore, with sons destined for the Services, should carefully eschew tight or cramping shoes for their offspring. A few privileged cadetships are given in the Navy to the sons of officers of both Services who have been killed in action, or who have died in consequence of injuries received therein. Applications concerning these should be made to the Military Secretary, Horse Guards, S.W., or to the Sea



tary of the Admiralty, Whitehall, S.W., for sons of former officers in the Army and Navy respectively. There are also a few cadetships given to the sons of colonists and Indian Army officers, and applications should be made to the Secretary of State for the Colonies, Downing Street, S.W., and the Military Secretary, India Office, Pall Mall, S.W. These candidates must obtain at least 40 per cent. marks in the first seven subjects.

No special coaching is necessary to enable a boy to pass the entrance examination, but the Drawing subject is one to which, as a rule, no great attention is given when boys are of the navy cadet age. He will learn all that is necessary at any ordinary school, as will be seen from the subjoined list of subjects: Arithmetic, up to interest; Algebra, up to quadratic equations; Euclid, Books I., II., and III.; English composition, Scripture, Mathematics, French, Latin, Geography, English history, and Freehand and Geometric drawing. The first part of this examination is called the test examination, and a candidate failing to obtain the necessary number of marks may have a second trial, provided he procures a fresh nomination and is still under age at the time of the second trial. The last five subjects constitute a competitive examination. No candidate may compete more than twice. The competition is severe, as many as six and eight candidates competing for each vacancy.

The candidate, having successfully passed both examinations, proceeds to the *Britannia* training-ship, at Dartmouth, where he will have to spend two years. There are three terms in each year. At the end of each term examinations must be passed, to show that in equations, Euclid (the first book only), writing, and dictation, satisfactory progress is being made. If he does not obtain the minimum percentage of marks, or if he is twice reported to the Admiralty for unsatisfactory conduct, or, again, if he is considered in any way unfit for the Service, he will be ordered to be removed. No pay is, of course, given to cadets on board the *Britannia*, and besides the fees, which amount to £75, the parents have to pay for their sons' outfit, pocket money, washing, and extras during the time spent there. The *Britannia* will soon be a

thing of the past, as she has been condemned as unfit for the requirements of a training-ship, and boys will qualify for the Navy at the Royal Britannia Naval College, which has been erected at Dartmouth.

Having creditably passed his time on board the *Britannia* (which, after all, is very like a floating school), the cadet will be appointed to a ship as midshipman, from which rank promotion goes from sub-lieutenant to lieutenant, commander, and captain, while a very fortunate few may, by dint of great good luck, pass the latter point and reach the position of rear-admiral, vice-admiral, and admiral. The number of the sub-lieutenants, lieutenants, commanders, and captains has been increased of late by nearly one-third, and the naval estimates are not likely to be diminished, but further increased.

The cost of putting a boy into the Navy is not great, but it must not be forgotten that after he receives his commission it will be some time before he can do without help from home, for even as a sub-lieutenant it is an impossibility for an officer to subsist upon his pay, and for some years something should be added to the modest emoluments received by naval officers. The fees on board the *Britannia* amount to £75 a year, and the extras, such as washing and pocket-money, will make up the sum to £100. A few sons of officers are, however, admitted for £40 a year. The cost of the cadet's outfit will be £50; so that in all, the allowance in after years included, a sum of at least £800 will be required, and no parents who are not prepared to spend this should consider the Navy (or at least this branch of it) as a fitting profession for their boys. Promotion is slow in the Navy, especially in the upper grades, and in these last not a little depends upon interest; perhaps promotion lingers more in the Navy than in any other service. To reach the rank of commander is a comparatively easy affair; it is after this rank that the rub comes, and too many find themselves at this period shelved upon half-pay, with a long time of weary waiting between their commissions to ships.

The life is an eminently healthy one, in spite of the dangers. In time of peace the officer in the Navy has less

danger to encounter than his brother in the mercantile marine. He has, it is true, to serve in many unhealthy stations, and is separated from his wife and family for a stretch of three years at a time; but the climates are now taken into consideration, and in places such as the west coast of Africa a commission lasts for two years only.

A word as to pay. A midshipman's begins at £31 18s. 6d.; a sub-lieutenant's at £91 5s., with an allowance to navigating officers of £45; a lieutenant's at £182 10s., rising to £256, and allowances up to £70 being given for extra duty as navigating officer; a commander's at £365, with possible extras of £140; a captain's at £410 12s. 6d., rising to £602 5s., with extra pay varying from £90 to £330; while that of a captain of the fleet, a commodore of the first class, and a rear-admiral rises from £1,000 to £2,700 per annum. Staff appointments are not few, and are well paid; *e.g.*, admiral-superintendent at a dockyard, governor of Royal Naval College, and naval members of the Board of Admiralty, carrying personal distinction as well as salary.

Pensions vary according to years of service and rank attained. When the officer, being a captain, commander, or lieutenant, retires between 40 and 60 years of age, his retired pay ranges from £200 to £600 a year, and there are good service pensions of £100 a year given to deserving officers in addition to retired pay.

#### **B.—ENGINEERS, NAVY CONSTRUCTORS, THE MARINES, THE ACCOUNTANCY BRANCH, CLERK-SHIPS.**

Engineers and accountant officers now occupy almost the same social rank as those in the branch treated of in the preceding article. Their pay is also less, but, on the other hand, the cost of qualifying for these positions is less, a consideration of weight with many parents whose sons manifest an unconquerable desire for a seafaring life. Neither, nowadays, are these appointments to be despised, as the pay is fair, a pension is attached to the positions, and the many small expenses that make a respectable total in the

lieutenant's accounts do not exist for the engineer and paymaster. The engineer is now a commissioned officer; his importance in modern navies is being recognised, and, ere long, whatever slights he may have to bear now will be absent. The engineer's profession is likely to be held in greater respect as the old school of naval men dies out.

Vacancies for appointments for engineer students are filled by means of competitive examinations. These examinations are open to the sons of all British subjects who bear a good moral character, but a few candidates are usually nominated by the Lords of the Admiralty, and also three appointments are annually given to the sons of colonials on the recommendation of the Secretary of State for the Colonies. The examinations are competitive, and take place before the Civil Service Commissioners during April in London, Liverpool, Edinburgh, Glasgow, and Dublin, and certain other provincial towns. Candidates must be between the ages of fourteen and seventeen. A fee of £1 has to be paid by each candidate. Arithmetic, handwriting, composition and grammar have first place upon the list of subjects, and any candidate failing to pass in all these, as well as in reading aloud, will be disqualified. The further subjects are French or German or Italian, Latin, elementary physics and chemistry, geography, algebra, Euclid (the elements), and freehand drawing. For success, at least 45 per cent. of the total marks must be obtained. The successful candidates pass a very severe medical examination, and, having satisfied the examining board of naval medical officers that they are sufficiently sound for their vocations, they are entered as engineer students on the books of the guardship of the Depot Ship at Devonport, where they undergo a training in Devonport Dockyard for a period of five years. This term is reduced to four in the case of students of special ability. Board, lodging, and medical attendance are provided by the Admiralty, but uniform, washing, pocket money, and etceteras must be found by the parents. Students receive a small allowance during their training, one shilling a week for the first year, increasing with every year to eight shillings in the fifth.

Books, stationery, and drawing materials have to be found by the student. Students are examined once a year, the final examination being at the end of the fifth year, and if the student does not obtain 40 per cent. marks at the end of his second year, his services are dispensed with.

The expenses for engineer students qualifying for the Navy in this way amount to £40 per annum for each year that they remain in training, which sum the parent is called on to pay; five students, however, being the sons of officers of the Navy, Army, or Marines, or Civil Officers under the Board of Admiralty, are received yearly at a payment of £25 a year. A special outfit has to be purchased, which will cost about £15, and the probable annual expenses of renewal of uniforms and other clothes, washing, and subscriptions to recreative funds will probably amount to another £25 yearly, or an inclusive total for the five years of from £350 to £400. Six weeks' leave is allowed yearly on full pay, which is divided between Midsummer and Christmas.

At the final examination, the future seniority of the student is determined by his place on the list; those who obtain 60 per cent. and over go to the Royal Naval College, Greenwich, for further instruction, which means better pay and in the future quicker promotion to important posts. These students are again examined at the end of their first session there, and are granted, in order of merit, first, second and third-class certificates, by which means, twelve, six and three months of the probationary period for promotion are obtained without service. Those who do not go to the Royal Naval College are kept in the staff of the Steam Reserve at Devonport, and receive appointments as they fall vacant. Those who score under 30 per cent. at the final examination are no longer retained.

But there is also another way of entering the Navy as an engineer, *i.e.*, by direct appointment, when the candidate becomes a probationary assistant-engineer. In order to enter in this manner the candidate must be between the ages of twenty and twenty-three, he must produce satisfactory evidence that he has passed through a regular course at

a recognised college for technical education, and also that he has been not less than three years under training in an approved engineering establishment. He must be a British subject. The number of appointments for competition every year is fixed by the Lords of the Admiralty, and the examinations are held at the Royal Naval College, Greenwich, in June of each year.

The pay of engineers in the Navy starts at £110 as assistant-engineer, with £18 extras. After five years' service, they are eligible for promotion to engineer, receiving from £165 to £220, according to length of service; Staff and Chief engineers receive £270; Fleet engineers, £480; Inspectors of machinery, £548; and Chief inspectors of machinery, £1 15s. a day. The pensions for these ranks are: Engineers, £130 to £162 10s., according to service; Chief Staff and Fleet engineers, £450 annually; and inspectors of machinery, £500. Extra pay is given on active service to engineers in charge. Thus the engineer student becomes immediately self-supporting, with a certain prospect of pension, and there is also a compassionate allowance for widows of engineer officers.

The Corps of Naval Constructors is recruited from the engineer students, two vacancies occurring yearly, and being given to the students who at the end of their second year of training at Devonport show more than ordinary ability. To retain their services for at least seven years after the conclusion of their training, they have to enter into a bond for £500, which is forfeited if they leave the Service. When selected, they continue at Devonport as engineer students in all respects of pay, uniform, etc.; and at the final examination, those who obtain over 50 per cent. marks go to the Royal Naval College, Greenwich, as probationary assistant-constructors. They study there, and are tested by examinations in the same way as the engineer students, first and second-class certificates being awarded as the result of the final, which determines seniority. They are liable to be sent to sea or to serve abroad, but a grateful country provides that in such a case they shall receive pay as assistant-engineers, and be given a sum of £50 for uniform and outfit.

They serve four years as third-class assistant constructors, rising from £110 to £150 a year; then, if the record of work and character be satisfactory, they become second-class assistants with salary of £160, rising to £240; first-class assistant constructors receive £250 to £300; constructors, £400 to £550, with a house, or money allowance for a house; and chief constructors £700 to £850 with the like privilege. The senior chief constructor receives £850 to £1,000; and the director of naval construction, who is also assistant controller of the Navy, and a most important official, £1,500 to £1,800; the present holder of this post, Sir William White, enjoys a personal salary of £2,500. These posts are all subject to pension at the usual Civil Service rates, and are likely to grow in importance as the Navy increases, and newer and more improved methods of ship-building are brought to light. The staff is at present rather small in numbers, but the regular assimilation of two students yearly will cause it to increase.

Another branch of the Service, the Marines, which in former days was looked upon with some contempt by both the Army and Navy, and considered a suitable department in which to place the weak-headed member of the family, whose lack of talent unfitted him for any other calling than a position in this too credulous corps. Needless to say, this state of things has long since passed away, and considerable ability and a good allowance of brains are now as necessary to enter the Marines as any other branch. The examinations for candidates for the Royal Marine Artillery take place twice a year, in the months of June and November, before the Civil Service Commissioners; the limit of age is from sixteen to eighteen, and candidates must be 5 feet 5 inches in height, and of pure European descent. Applications to attend the examinations must be made to the Secretary, Civil Service Commissioners, Westminster, S.W., who will supply the requisite forms to be filled, and the candidate's name must also be sent in to the Secretary of the Admiralty. Successful candidates proceed to the Royal Naval College, at Greenwich, where they are appointed second lieutenants. At the end of the first session here another examination has to be

passed, and at the end of the second session, if their conduct has been satisfactory, they will proceed to H.M.S. *Excellent* for instruction in naval gunnery and torpedo work. When an examination in these subjects has been passed the pupils will be advanced to the rank of lieutenant, but any one failing will be discharged from the Service unless he is specially recommended for a second trial. Second lieutenants receive 5s. 3d. a day while at Greenwich, and those who remain after the first session receive an additional 1s. 6d. mess allowance.

Candidates for the Marine Light Infantry must go through the same preliminaries as those necessary to qualify for the Marine Artillery, but the limit of age of entry is higher, seventeen to nineteen. University graduates are allowed to compete between the ages of seventeen and twenty-two. The Woolwich and Sandhurst examinations referred to under "The Army" are the tests for the R.M.A. and the R.M.L.I. respectively; and as the Service is more economical, it is chosen by many to whom this is an object of consideration. At Greenwich, the R.M.L.I. studies extend over one session only, and at the examination which terminates the session the successful candidate becomes a lieutenant. The same scale of pay is received during study. In the higher grades the pay is that of infantry officers. In both the branches a certificate of ability to swim is necessary, a searching medical examination has to be passed, and a sum of £80 has to be paid on joining to provide for the outfit.

Candidates for the post of Accountant Officers must be nominated by the First Lord of the Admiralty, and they have to pass an examination held by the Civil Service Commissioners in June and November. Each candidate has to pay a fee of £1. Fifteen to seventeen is the limit of age, and a candidate has to show a certificate of good conduct from the master of the school where he has been educated for the past two years; he must also possess a certificate showing that he can swim. The examination is not a difficult one, and will not tax the abilities of any average boy; but the competition is keen for these valuable posts,

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which carry good prospects; and, of course, a medical examination has also to be passed. Two trials are allowed, provided the candidate is still under age. Having passed, he becomes an assistant clerk on board a ship ranking with a midshipman, and receiving pay at the rate of £46 a year, and rises, through the grades of clerk (£73), and assistant paymaster (£210), to the position of paymaster, at a salary of £256 to £602, with extra allowances varying from £45 to £91. The admiral's and captain's secretaries are always selected from this branch of the Service. Aptitude for accounts is a necessity for quick promotion. The subjects for examination are: Mathematics (arithmetic, algebra, geometry), English (writing, spelling, dictation, composition, précis writing), English history (a special period), geography, French, Latin, and shorthand or drawing, and additional mathematics and extra subjects. These posts of course carry pensions.

Many well-paid posts in connection with the Navy are obtained by the competitive examination for places as assistant cashier, assistant naval storekeeper, and assistant expense accounts officer in the Foreign and Home Naval Establishments. Candidates must be between eighteen and twenty years of age, must pass a severe medical examination, and must be prepared to serve where required. There are some 136 appointments in all, and examinations are held intermittently as vacancies occur. The subjects are: Obligatory — English (including composition and précis writing), and arithmetic; optional (only five to be taken, including two languages)—mathematics, English history, Latin, French, German, Greek, chemistry and physics. The competition is keen, and a high rate of marks must be obtained to ensure success. The successful candidates have to serve for two years as probationers, at a salary of £100; and then, if their record is satisfactory, they are given definite appointments at a salary of £120, rising to £350. Promotion is to the rank of deputy in the various positions, with salaries of £350 to £500, and superintendent clerks £600 to £850. All the higher officials receive official residence, or an allowance in lieu thereof of £50 or £75;

and there are other smaller allowances. The maximum of £350 without promotion being needed is a satisfactory one. The pension scale is that of the regular Civil Service, and there are many reasons why the vacancies should be eagerly sought for.

## The Army

A TASTE for soldiering seems inherent in nearly every boy, and, it is a taste that shows itself at a very early age. In many instances it is, of course, only a transitory phase, one that later on becomes subdued, and is gradually laid aside as other professions begin to offer greater attractions; but in others it increases with years, until the prospects of a civilian's life become thoroughly distasteful, the boy generally clinching matters by enlisting, if parental permission to enter the Service be withheld.

The Army, it is perhaps hardly necessary to state, is a very different profession from what it was fifty or sixty years ago, when interest reigned supreme, and commissions were purchased. In those days promotion without powerful friends or money was nearly impossible, and the Service was the preserved ground of a favoured few. But now we have changed all that, and, as in every other profession, brains and merit are the ladders by which the highest positions are reached. A very large amount of brains, it may be stated, is now required to pass the various examinations, not only for entrance, but for promotion, the Staff College, etc., and no dullard need ever expect to succeed in the Service. Languages, especially those of nations with whom England is likely to be at war, are now becoming an essential part of the officer's equipment.

If at fifteen years of age the boy's own tastes and those of his parents coincide as to the advisability of making him a soldier, it is time to turn attention to a special course of study. At many public schools there are special Army classes, while many private schools make a speciality of

preparing pupils for Army examinations. Now comes an important question, a question upon which authorities widely differ: Shall the Army candidate go to a crammer's? The prospectuses of various well-known cramming establishments are certainly alluring, with their list of successful pupils, but the very high fees charged make the matter a serious consideration to the majority of parents: and if statistics be carefully inquired into, it will be found that at least an equally large proportion of successful candidates have not come from the cramming establishment. A boy of brains should pass straight from school to Sandhurst, and it is desirable that he should be thoroughly tested, *e.g.* on the Oxford or Cambridge local, or the Matriculation of London University. In many cramming establishments (there are, of course, honourable exceptions) boys are left very much to their own devices, the supervision being of the slightest and the discipline nil. But where a boy is backward, where he does not possess the necessary energy to work hard on his own account, or where he is possessed of that fatal idleness so frequently to be found with cleverness, the crammer becomes a necessity, but must be selected with care.

As every one knows, the Royal Military College, Sandhurst, the Royal Military Academy, Woolwich, and the Militia are the doors by which the Army is entered—Sandhurst for cavalry and infantry, Woolwich for engineers and artillery, and through the Militia for all departments of the Service. In order to enter Sandhurst two examinations have to be passed: the Preliminary and the Further. The first of these may be passed at any time over the age of fifteen; the limit of age for entering the college is nineteen. The preliminary examinations are held in March, June, September, and December. A fee of £1 has to be paid, and applications must be sent to the Civil Service Commissioners, Victoria Street, S.W. The successful candidate will then go up for the further examination, which takes place in April and October, and for which the fee is £2 if examined in London, £3 elsewhere. Both examinations are competitive; for the first any number of trials is allowed, for the second three only

There is an oral and a practical examination in addition to the written portion. The same regulations are observed in entering Woolwich, but the preliminary examination may be passed at fourteen, and the age for admission is between sixteen and eighteen. Mathematics are most necessary for boys entering Woolwich, and the examination is considered harder than that for Sandhurst, but, on the other hand, competition is not nearly so keen at the former place. The obligatory subjects for the Sandhurst and Woolwich examinations are:—Mathematics, Latin, French (or German), English Composition, Geometrical Drawing. The optional (of which two only may be taken): Mathematics, French or German (the subject not taken as obligatory), Greek, English History, Chemistry or Physics, Geography and Freehand Drawing. The Mathematical subjects are not the same for Sandhurst and Woolwich.

The Militia candidates, in addition to the subjects for the Sandhurst entrance, have to go in for military subjects, Fortification, Tactics, Military Law and Topography. The conditions for the Militia candidates are that they shall have the approval and recommendation of the commanding officer, and that they shall have,

- a. Served two yearly trainings with the Militia regiment to which he belongs, and have passed the examination and obtained the certificate required of a subaltern officer before the end of the second training after appointment.
- b. Completed a service of fifteen months in the regiment to which the candidate belongs, by the 15th January and 15th July for the March and September examinations respectively.
- c. If more than twenty-two years old, must have served three annual trainings with his regiment and have obtained the certificate named in *a* before the end of the third training.

A Militia candidate who seeks entrance to the Royal Artillery must, in addition to the preceding conditions, have served in a Militia Artillery Battalion, and passed the School of Instruction at Woolwich, the certificates of which

are required. The fees for Militia candidates are £2 if examined in London, £3 elsewhere. The examinations are held twice a year, in April and November.

The course of entry for Militia candidates who are also university graduates is easier, in so far as they are excused the Literary Examination, but Geometrical Drawing must be taken up with the technical subjects. Graduates of any university in the kingdom share in this privilege. Artillery candidates who have passed certain equivalent tests at Oxford, Cambridge, Dublin, or the Royal University of Ireland, are exempted from part of their mathematical subjects.

Three terms, or a year and a half, have to be spent at Sandhurst, and at the end of every term an examination has to be passed. If the pupil fails to pass one of these examinations, he is warned that a failure to pass in the next examination will result in his removal from the college. If a cadet fails to pass the examination at the end of his third term, he will not be allowed to return to the college; but if the Governor specially recommends him he will be allowed to compete at the next examination. This is a final one, and failure here means that he will be disqualified for a commission in the Army. Regulations for admission to Sandhurst can be procured for one penny from the Director-General of Military Education. The War Office medical examinations take place both before and after the examinations; and here a word of advice is necessary to the parents of would-be soldiers. Before the boy's hopes of entering the Army are raised, and before any special course of study is entered upon, let the family doctor make a careful examination. Physical perfection, and nothing less, is aimed at in the Service at present, and frequently hitherto unnoticed trifles are an effectual bar to its entrance. For Woolwich a boy of 18 must be 5 feet 5 inches in height, and 130 pounds in weight; for Sandhurst the lad of 19 must stand 5 feet 5 inches in height, and be 132 pounds weight. Not long ago a candidate, who had in other matters qualified successfully, failed to pass into Sandhurst because of a false tooth. Teeth are now a great consideration, ten may be stopped, but not more;

while the most trifling abnormality in vision, so trifling that it can scarcely be called a defect, is sufficient to ensure rejection; a squint or colour blindness is also a disqualification.

The expenses of entering the Service vary widely, with the means employed for qualifying. Two years passed at a crammer's means from £400 to £500, which would be saved if the boy passed straight from school. The expenses at Sandhurst will be about £150 a year for the sons of civilians, but are only from £20 to £80 for the sons of officers, the services of their fathers being taken into consideration. The cost of an outfit ranges from £100 to £150. The expense of uniform, books, etc., is £35, which has to be paid on entry. It is less easy to estimate the expenses of a Militia candidate, his principal expenses being during the month that the regiment is out; for the rest of the year he can reside at home, if this be within easy distance of the regiment.

After the commission has been obtained the subaltern cannot be considered self-supporting, unless, indeed, he at once goes upon foreign service, and a parent should be prepared to make his son an allowance of at least £100 a year till promotion comes if he remains at home. Many men boast that from the beginning they have lived upon their pay, but when it is considered that the pay of an infantry subaltern is 5s. 3d. a day, and that mess charges usually come to not less than 5s., it seems difficult to imagine where the money for all other expenses could come from. Expenses in different regiments vary widely, and it is a piece of inexcusable carelessness (and provocative of much hardship to his son) for a parent to put his boy, to whom he can only make a small allowance, into a smart regiment. Debt is the result. The exact expenses of each individual regiment can always be obtained by writing to its colonel. In cavalry regiments an allowance of £250 a year and upwards is necessary—£250 for foreign service and £300 to £500 in England—but promotion is speedier in them than in the infantry. The West India Regiment is certainly the best suited to poor men, on account of the extra pay given, and the facilities for leave. In this regiment as well as in the Royal Engineers, it is

possible for a subaltern to live on his pay. India, too, offers large inducements to the short of purse, and when a young fellow is successful in entering the Indian Staff Corps his position in life and excellent pay are assured.

The Staff College at home, too, offers excellent prospects, but here exceptional ability is needed. A man passes into the Staff College from his regiment either by open competitive examination or by a nomination which he obtains as a reward for good service, or for having shown exceptional ability in his profession. The Army Service Corps, the commissariat department, although it is practically a non-combatant force, and as such regarded by some with a slight savour of contempt, is well paid, the lieutenant beginning with 10*s.* a day and certain allowances. If the boy's talents lie in the engineering line, there are many openings in the Royal Engineers; important and well-paid appointments at home and abroad are given to Army men, notably in India, where places that would seem the due of civilians are frequently given to Royal Engineers. The Royal Engineers is a corps which especially suits the able man. He can live on his pay; his prospects of extra army employment are many (*e.g.* the Indian Telegraph), and his Army promotion is sure.

The commencing pay in the Royal Horse Artillery is 7*s.* 6*d.* a day; in the Cavalry, 6*s.* 8*d.*; the Garrison Artillery and in the Royal Engineers, 6*s.* 8*d.*; and in the Infantry, 5*s.* 8*d.* The future lies entirely in the officer's own control; but, as stated above, languages and technical knowledge are essential for promotion, and their possessor is well rewarded.



## The Civil Service

HOW varied and far-reaching are the ramifications of the Home Civil Service may be judged from the fact that in the United Kingdom upwards of sixty thousand persons are employed by the Civil Service Commissioners, who deal with some thirty thousand candidates annually. The kinds of employment in which Civil servants are engaged are many and divers, and all sorts and conditions of men are to be found therein. The advantages of the profession are numerous, and parents are fully aware of this, for the percentage of candidates for each vacant place increases yearly, making entrance so much the harder; but in spite of the crowded state of affairs, the prizes obtainable by the successful few are well worth the trial. The salaries, if not large to begin with, increase by regular increments, and in the higher branches the pay is certainly good. The hours, too, are regular and easy; in many of the London departments they are from 10 a.m. to 5 p.m., while in other departments work ceases at 4 o'clock. Salaries are paid during illness, and after the age of sixty pensions, at the rate of one-sixtieth of the salary and allowances for each year of service, with a maximum of forty-sixtieths or two-thirds, become due. There is none of the uncertainty as to the continuance of pay that forms such an unpleasant element in many professions.

The examinations for the Civil Service—which are always announced by advertisements in the *London, Dublin, and Edinburgh Gazettes*, the principal daily newspapers, and the many Civil Service papers, *e.g.*, *The Civilian*, etc.—are decidedly difficult; and if good positions are aimed at no small

abilities are required; but in others an easier scale of requirements obtains, and many a boy may possess sufficient abilities to pass in these, where he would most certainly be disqualified for the more important departments. Having entered one of the lower departments, the successful candidate can employ his spare time in qualifying for a better post, and the higher departments are often recruited from the lower. Physique, too, is an all-important qualification; for the continued mental strain needs robust health, and defects in various organs, which appear trivial before entering the Service, are apt to develop, and occasionally end in the Civil Servant being invalided. Therefore, if after a careful examination the doctor discovers flaws in the candidate's constitution, it would be wiser to adopt some other profession. Nevertheless, the same degree of physical fitness as is required for the Army and Navy is not necessary; a certain amount of short-sightedness and such small defects not being disqualifications.

As a rule, the boy destined for the Civil Service should have an aptitude for clerical work, he should possess a talent for concentration, for method, and be careful and exact in small matters of everyday life. The harum-scarum youngster, fond of outdoor life, who is possessed of the disorderliness supposed to go hand in hand with an artistic temperament, who never knows where his things are, and loses his various possessions as soon as he obtains them, is eminently unfitted for the life of a Government clerk. A talent for figures and for statistics is very needful, as whatever department of the Service the boy may enter, these always come within the scope of his duties.

Another matter, too often neglected nowadays in these times of type-writing, but one which is still considered of great importance in the Civil Service, is good handwriting; bad caligraphy is a serious bar to success, and this, in itself such a small thing, is frequently overlooked—the candidate giving all his attention to what he considers more important studies, with disastrous results.

Qualifying for the Civil Service is usually attended with much expense, as the crammer, with his high fees, has come

to be considered a necessity for those who intend competing for appointments in the Higher Division; and when the question of this profession is mooted, it comes quite as a matter of course that the candidate must attend some well-known establishment. It is on this account that so large a number of successful students are claimed for the honour and advertisement of Messrs. A. and B.'s house; but it is more than probable that had these same successful ones gone before the Commissioners straight from school, or with the addition of a short, special course at some of the many institutions where classes are held, they would have been just as successful. Many pass who have never been through a crammer's hands. These have been youths of exceptional ability, diligent, and painstaking. It is where a boy is lazily inclined, when he has wasted his time at school, that the benefits of the crammer come in. If the cramming establishment is resorted to, the cost of qualifying will be £3, £30, or £500, according to circumstances. Once in the Civil Service the boy is provided for, and no further allowance or assistance from parents is necessary.

At one time, as in so many other professions, interest was all-powerful in bestowing Civil Service appointments, but this is now practically a thing of the past. To quote the regulations. "In each department, promotion to the higher grades depends on merit, and on the occurrence of vacancies; but no right to promotion to higher classes or grades is recognised." Interest, as in every profession, is not, however, altogether done away with, for the possession of willing and influential friends is a distinct help to success, when backed up by ability in the individual so befriended.

Various schemes for reorganizing the Civil Service are from time to time brought forward, and, although they are undoubtedly productive of good to the service in general, they press hardly upon individual members who occasionally find themselves superannuated, or given work that they consider altogether unsuited to their age and condition; while they have the mortification of seeing juniors, under the new scheme of regulations, thrust over their heads. This matter is, however, made clear to every candidate

before he enters the service. "Each successful candidate will accept his appointment subject to the express condition that the staff of the department to which he may be attached is liable to reorganization from time to time, as the interests of the public service may require, and that no claim to compensation on his behalf can be admitted if such reorganization in effect shall reduce the number, or alter the condition of superior appointments in the department." On first appearance this regulation seems hard, but as a matter of fact, although it is stated that no claim to compensation can be admitted, yet compensation is always given.

There are, speaking generally, two great clerical branches of the Home Civil Service: Higher Division clerkships and Second Division clerkships. In the Higher Division comparatively few appointments are given yearly, the average of past years being about 20; and the examination to be passed in order to obtain them is a hard one. Candidates, however, are eligible for the Indian Civil Service, and the Eastern Cadetships, the number of vacancies in each being stated at the time of the announcement. This is important, as it opens up such widely diverse appointments to a clever student. The Universities show up so well in the results that it seems almost a necessity for success that the candidate should have taken a degree: only 2 of 105 candidates at the 1897 examination were non-university men. The subjects in which the candidates are examined comprise English language and literature, French language and literature, German language and literature, Latin, Greek, Sanscrit, and Arabic language and literature, English, Roman, and Greek history, elementary and advanced mathematics, political economy, law, logic, and mental philosophy, and political science, Roman and English law. A goodly list of subjects, and one that needs a high order of intelligence to cope with it, especially as the competition is keen, and a mere smattering does not give ground for hope. The fee for entering this examination is £6, payable to the Civil Service Commissioners, Westminster, S.W. Candidates must be between the ages of twenty-two and twenty-four. The posts to which candidates are appointed as a result of this examination are in the

Admiralty, the War Office, the Civil Service Commission, the Colonial Office, the Irish Constabulary Office, the Customs, the Ecclesiastical Commission, the Exchequer and Audit Department, the Home Office, the India Office, the Inland Revenue, the Local Government Boards (England and Ireland), the Lunacy Commission, the Patent Office, the Post Office, the Record Offices (England and Ireland), the Science and Art Department, the Board of Trade, the Treasury, and the Chief Secretary's Office (Ireland).

In addition there are posts recruited by limited competition. These are principally in the Diplomatic Service, and the Foreign Office; in the British Museum, cadetships in the Royal Irish Constabulary (see p. 264), and a variety of clerkships in the Royal Courts of Justice (England and Ireland), the High Court of Justiciary (Scotland), Metropolitan Police Offices and Police Courts, Post Office (Supplementary Clerk), House of Lords, House of Commons, London University, Prisons Boards (England, Ireland, and Scotland), etc. The nominations for these are in the hands of the heads of Departments, the Lord Lieutenant of Ireland and the Judges. There are also a number of officers, appointed by nomination or by limited competition, who are dealt with under the section, "Lectureships and Inspectorships": and technical appointments are referred to at the end of this article. The House of Commons and House of Lords appointments (both of which are now the subject of enquiry by a committee of both Houses) are among the better ones; for these a nomination from the Speaker or the Clerk of the House is required. The age in each case is 19 to 25, six candidates being usually nominated to each vacancy. In the Commons there are 12 Junior Clerks (£100 to £250), 12 Assistant Clerks (£300 to £600), 6 Seniors (£650 to £800), and 4 Principals (£850 to £1,000), and £2,000 is distributed as extra allowances. In the Lords 12 Clerks receive £100 to £600, 4 Seniors, £700 to £850, and one Chief Clerk, £1,200. Vacancies in the Lords occur but seldom.

The scale of pay begins in Class 1 at £150 a year, and varies in the different departments, reaching in some to £1,000 and in others to £1,200 a year, besides which there

are also certain valuable staff appointments. Candidates are allowed to choose, according to their place on the list, among the vacancies for which they are duly qualified, or they may elect to wait for a vacancy. When such vacancies occur they are offered in rotation to the qualified candidates, who, however, will be free to decline them without forfeiting their claim to subsequent vacancies.

It is a difficult matter to set forth clearly the varying merits of different appointments in the Higher Division of the Civil Service, or even to mention each individual department; but the scales of pay in some of the principal ones will be of interest to parents of prospective Civil servants. In the War Office, lower clerks rise from £150 to £400 a year, and upper clerks to £600. Principals are paid on a scale rising from £700 to £900, and there are a few staff posts with salaries of £1,000 to £1,500. In the Inland Revenue Department, clerks rise to £500 a year, principal clerks to £700, committee clerks to £800, assistant secretaries to £900, and secretaries to £1,200. In the Colonial Office, clerks commence at £200 rising to £500, first-class clerks at £600 to £800, and principal clerks at £850 to £1,000; while in the Science and Art Department, clerkships range from £150 to £350 a year. From this the clerks rise to assistant examinerships (£250 to £550), examinerships, and the chief clerkship (£550 to £650). Frequent are the complaints on the part of Civil servants of the tardiness of promotion, and there is reason in their complaints, for, in spite of all to be said in favour of the profession, it must be admitted that promotion in the Higher Division is slower, and the time of waiting therefore longer than in almost any other profession.

Having considered the prospects, salaries, and success of entering the Upper Division of the Civil Service, we come to review the lower, and far larger branch to be dealt with—namely, the Second Division Clerkships. As many as 150 situations in the Lower Division are filled up yearly, for which the competitors enter in ever-increasing multitudes. The examinations are, of course, infinitely less difficult than those for the Higher Division, and many pass them in the hope of making their entry into the higher grade

through this means. The advantage of entering in this way is that longer time for preparation is thereby gained. Any Civil servant competing for another Civil appointment may deduct five years from his age, bringing the limit in reality to twenty-nine instead of twenty-four. If he fail, he has still his berth in the Lower Division to fall back upon, while the outside candidate, not being a Civil servant, cannot always, in case of failure, turn to the lower branches, as he may be above the limit of age.

The qualifications for entering the Second Division of the Civil Service are radically the same as in the higher branch; order, care, neatness, an aptitude for figures and clerical work being equally necessary, and the conditions of health also equally important. The question of age, which is from seventeen to twenty, is also a very weighty matter, and an official certificate of birth is required of each candidate; certificates of baptism and other testimony not being considered sufficient. Candidates must be natural-born British subjects, but this does not mean that they have been born in British dominions themselves, for a person born in a foreign country who can prove that his father or grandfather was born in British dominions is, if he has not expatriated himself, admissible to all open competitions.

The subjects, all of which are optional, but all of which, owing to the severe competition, are, in practice, obligatory, are: Handwriting, orthography, arithmetic, copying manuscript, English composition, geography, indexing, digesting returns, English history, and book-keeping. It is possible (though nothing has been done) that in future another subject (*e.g.* a foreign language, mathematics, science, or shorthand, or all of these) may be added to the scheme. To show the closeness of the competition, in the December, 1896, examination, the first man on the list scored 81 per cent., and the ninth candidate was separated from the ninety-ninth by 148 marks only. Ties are of frequent occurrence, and it is a matter not of wide differences, but of the apparent trifles which spells success in a Second Division Examination. Bad writing, careless work, an incomplete history answer—these are the things which bring failure. There are about 3,000

Second Division clerks, of whom the largest part are in London offices: the others are in Edinburgh and Dublin, but Admiralty clerks are liable to serve at any of the Government yards at home or abroad, Exchequer and Audit clerks to serve at any naval outpost or manufacturing station, and Customs clerks at Liverpool and other out ports.

It is not an expensive affair qualifying for the Second Division of the Civil Service, and little study is needed in addition to the ordinary school education, but it must be hard and exact study, not slipshod work. For boys whose school education has been neglected, or such as are backward for their age, a few months' special training is certainly a necessity; and there are many excellent institutions, whose advertisements can be seen in the *Civilian*, the *Civil Service Year-Book*, etc., where a three months' course may be had for the sum of £10 10s. The Civil Service Institute, in Chancery Lane, is a good example of such institutions. For boys whose homes are in remote country districts, tuition by correspondence is useful, and this work is well performed by the Royal Civil Service College, Albert Hall, Edinburgh.

The competitive examinations for Second Division Clerkships are held yearly in London, Edinburgh, Dublin, Birmingham, Leeds, Liverpool, and other important towns. A fee of £2 is paid for the examination. The winners of clerkships may fill up papers showing what offices are preferred, and should those chosen not be vacant, they are allowed to wait. The Commissioners endeavour as far as possible to employ the waiting candidates as copyists.

The scale of salaries in the Second Division of the Civil Service is naturally much lower than in the First Division. Beginning at £70 a year, pay rises by annual increments of £5 to £100; thence, by sums of £7 10s., to £190. Before this last-named sum can be passed, the clerk has to show evidence of special competence and good conduct. From £190 the rate of £250 is reached by rises of £10, and thence to the maximum pay of £350. After a clerk has reached the £250 scale, his promotion does not continue by seniority, but by good behaviour and general fitness.

There is much ground for the grievance that the promotion



to this higher grade (£250 to £350) is by no means as frequent as had been promised ; and indeed in many departments the number recommended is not represented by existing positions. Promotion occasionally takes place to the Higher Division after eight years' service ; but these appointments have not been, and are not likely to be, numerous.

For purely clerical work, there are two grades below the Second Division, which are only of value in regard to the age allowance when competing for the Second Division. Temporary boy copyists are appointed by open examination (fee, 2s. 6d.), when between the age of fifteen and eighteen. The subjects are : Handwriting, orthography, arithmetic, English composition, copying manuscript, and geography. The examination is held in London, Edinburgh, Dublin, Liverpool, Aberdeen, Glasgow, and Belfast, two or three times a year, when from 150 to 300 places are offered. They are not retained after the age of twenty, when they probably will have had one or two tries for the Second Division. The Service allowance (which is limited to five years) is available even if at the time of the examination the man be not in the Service. Thus a boy copyist who is appointed at the age of sixteen, and does not succeed in a Second Division examination before he attains the age of twenty, has another four years during which he can compete. The pay is small—14s. a week, rising by 1s. years to 18s., and the hours are thirty-nine a week.


Abstractors and assistant clerks are appointed by examination among the boy copyists : they must be between nineteen and twenty-one, and the examination (the fee for which is 10s.) is the same as that for boy copyists, except that digesting returns is substituted for copying manuscript. The salary is small, starting at £55 and rising by yearly increments of £5 to £100, then by £10 yearly to £150, the maximum. Both this and the boy copyists should be regarded merely as stepping-stones to the Second Division, by means of the age allowance, as allowing a boy to work for his examination, and earn at least part of his maintenance. The Abstractor class is a permanent appointment, and pensionable on the usual rate.

Civil Service appointments under the Admiralty (assistant cashiers, etc.) are dealt with under the head of "The Navy."

The Customs Service consists of two grades, Waterguard and Preventive staff, Landing and Warehousing staff. The former is recruited from the ranks of the boatmen, who obtain appointments through Parliamentary influence; the initial salary is £55, and there is now a likelihood of promotion through the class of Preventive officers. The valuable appointment, however, is that of Assistant of Customs, appointed by open competition, and progressing through the grades of Examining officers, Surveyors, and Inspectors. At present all examinations are in abeyance, as there is a surplusage of officers, and when they are resumed it is probable that the former regulations will be altered. The age is to be from eighteen to twenty-one. Candidates must be single, and must pass in handwriting, arithmetic and mensuration, English composition (including orthography), and geography. A fee of 15s. has to be paid. The salaries of Assistants are from £70, by £5 yearly increase, to £105; Examining officers, £100 to £340; Surveyors, £350 to £550; Inspectors, £560 to £700. Promotion depends in great part upon success in departmental examinations.

Assistants of Customs can compete at the examinations for clerkships at the outports, a certain number of which are reserved for them: the remainder are offered to open competition. The subjects are as at the Second Division examination. The limit of age for open competition candidates is seventeen to twenty; the fee £1; the initial salary, £70, rising by £5 to £90, and then by £10 to £200. Promotion is to second class (Upper Section), £200, by £10 to £300; first class, £320 to £400; and Principal clerkships, £420 to £500. There are 11 Principals, 38 first class, 40 second class (Upper Section), and 94 second class (Lower Section). The outports are every port in the kingdom except London.

The Junior Clerkships in the Ecclesiastical Commission are open to competition, the age being eighteen to twenty-two, the fee £2, the subjects (all obligatory): Algebra, arithmetic, précis, English composition, history, geography, Latin, and



French or German. Vacancies are but one or at most two a year, twelve posts being offered in the last eleven years. The initial salary is £70, rising to £100; then £100 to £190, then £190 to £250, and £250 to £350, with prospect of further improvement.

An important open competition appointment is that of Assistant Surveyor of Taxes, for which the age is nineteen to twenty-two. This was formerly bound up with the Higher Division examination, but is now separate; the fee is £6, and about fifteen to twenty-five appointments are vacant yearly. The subjects are arithmetic, English composition, geography, book-keeping; any one of French, German, or Latin, Euclid, algebra, and political economy. The initial salary is £100 to £180, Surveyors, £200 to £250, rising, through various grades, to £600 by seniority. This, like the Excise and Customs, means a change of residence on promotion, and often without it. The competition is keen, and the prospects of advancement are great, so that the examination is eagerly looked for.

The Assistants of Excise, a numerous body of men, upon whom falls the onerous and trying work of supervising all the distilling, brewing, etc., are appointed by open competition in handwriting, English composition, arithmetic (elementary and higher), and geography. Two examinations (for about seventy to one hundred vacancies each) are held yearly, in May and November, and the competition in the seemingly simple subjects is severe. The successful candidates do six weeks' work under instruction, and are again examined by a collector. If successful they become assistants with salary of £50, rising by £5 to £80, and officiating allowance of 2s. a day for seven days a week. When appointed second-class officer he receives £115, rising by £7 10s. to £160, with £40 horse allowance if in country districts, and subsistence allowance. First-class officers receive £180 to £250, but the number of these officers is fixed and promotion by seniority is slow. First-class officers can compete for the position of assistant supervisor, £250 to £320, with horse and subsistence allowances. First-class supervisors receive from £340 to £400; second-class inspectors (by

## The Law—The Bar

**P**ERHAPS no profession possesses so large a proportion of unemployed members as the Bar, and when numbers are taken into consideration, it at first sight appears hopelessly overstocked; but here, as in many other cases, statistics are misleading, for of the men who are called to the Bar, a large proportion have not the slightest intention of following up the call and of practising. In many walks of life the fact of being a barrister lends considerable importance, together with substantial advantages, to the man who has acquired the right to the title. Country gentlemen find that to be a barrister gives additional weight to their decisions upon the magisterial bench. Would-be members of Parliament find it useful. Civil servants in good positions find that to be called to the Bar opens the door to further promotion. Doctors anxious for the post of coroner find it more easily obtainable if legal knowledge be combined with their medical skill; and many journalists find that the call enhances their value in the "fourth estate." All these, to say nothing of many business men, become barristers without the least intention of practising, from which it may be deduced that in reality the Bar is not so overcrowded as it appears at first sight. Making due allowance for this, it must still be admitted that the profession is overcrowded; and the prospects therein do not appear particularly attractive, for people seem less inclined to go to law about their disputes in the present day than did their fathers. Possibly the generation has grown wiser, and prefers sharing the actual oyster rather than the shells meted to them by a court of justice; and another

theory put forward to explain the disinclination to consult counsel, is that many papers give legal advice, in return for a coupon cut from the journal. Against this, however, is the increased litigation consequent upon changes in the law relating to Bankruptcy, Public Companies, etc., and the litigation caused by such acts as the Workmen's Compensation Act, etc. The increase in the number of local authorities competent to sue or be sued also has to be taken into account. But the fact of overcrowding (a hard one for would-be barristers) remains.

No one who cannot afford years of waiting should think of entering this profession, for not only is advance slow, but years often elapse before a single brief is obtained. Interest with influential firms of solicitors is another all-important matter. To follow Gilbert's advice, and fall in love with a rich attorney's daughter, has the merit of being practical; unless there is some connecting link between the barrister and the other branch of the profession the outlook is not a hopeful one. Ability, of course, will in the long run push its way to the front, but without some friendly help, when on the lowest rung of the ladder, the climb will be a hard and long one, a climb taxing the patience of the most persevering to the utmost. Without this necessary help, exceptional talent will find it a hard matter to succeed, and mediocrity stands not the slightest chance in the world. Therefore, unless you are the fortunate possessor of interest with solicitors, or unless your son's mental faculties are a long way above the average, do not encourage him to follow this profession. Good health is another quality that must not be overlooked, for the prolonged mental strains incidental to the profession are a serious tax upon the strength. Proficiency in speaking, such as a University Debating Society will give, is of great value in the future.

When the profession of the Bar, with its delightful possibilities and its speculative uncertainties, has been finally selected, the first step to be taken is to join one of the four Inns of Court—Lincoln's Inn, the Middle Temple, the Inner Temple, or Gray's Inn. There is some slight difference as to fees at these Inns, but the principal difference lies

in the society to be found there—University men generally congregating at the Inner Temple, and Gray's Inn being affected by large numbers of Hindoo students, who after qualifying return to their native land to practise as "pleaders," a compound of barrister and solicitor. The Council of Legal Education has consolidated the examinations at the various Inns, but the prizes to be won vary with the Inn chosen. Thus Lincoln's Inn grants a £50 prize to those who obtain a Certificate of Honour or win a Studentship. Gray's Inn gives prizes amounting to over £200 yearly. In order to be admitted as student to one of these Inns an examination has to be passed in the English and Latin languages and English history, but this preliminary examination is excused to all who have passed a public examination at any University in the British dominions, or an examination for a commission in the Army or Navy, for the Indian Civil Service, for the Consular Service, or for cadetships in the three Eastern colonies. Every one on applying for admission as student has to pay a sum of £1 1s., for the form of admission, and applications for such forms should be addressed to the Steward of Gray's Inn, W.C., to the Treasurer of the Inner Temple, E.C., of the Middle Temple E.C., or of Lincoln's Inn, W.C. Examinations, which are both *viva voce* and written, are held every week during term time.

Having successfully passed the preliminary examination, the student, who will soon realize that a University education is a great help to him both personally and in his studies, has to keep twelve terms: in the case of the winner of a Studentship or Certificate of Honour, ten terms suffice. This cannot be done under a period of three years, although it may extend over as lengthy a time as the student wishes. Keeping terms consists of eating a certain number of dinners, six in each term. These repasts are eaten in the halls of the various Inns. Students at all the Universities in Great Britain and Ireland, however, need only eat half the number. During the time of keeping terms the Bar student will be employed in attending the lectures and classes for members of Inns of Court, and completing his

legal education for the examination for the call to the Bar. In addition to the instruction received at the Inns of Court, most students read with barristers in their chambers. The examination for the call to the Bar is held four times a year, one before each term, and may be entered for as soon as the requisite number of terms have been kept. The examination includes the subjects of Roman Law, Constitutional Law (English and Colonial), and such heads of English Law and Equity as the council shall from time to time determine. The examination is a stiff one, and requires considerable study. The fee payable to the examiner and assistant examiners is left to the discretion of the Council of Legal Education. Two studentships of £105 a year, each tenable for three years, are given each year to the students who best pass the examination. These studentships are granted only to men under twenty-five years of age. There are also a variety of scholarships and prizes to be gained.

On entering one of the Inns of Court, the student has to give a bond jointly with a householder in England, as security for the payment of his fees; but a deposit of £50 (returned at call) may be made, when a personal bond from the student is sufficient. In the case of the Inner Temple the deposit is £100, but University graduates and Scottish Barristers are allowed exemption from this. The total fees to be paid on the student's admission amount in the case of Gray's Inn to £39 13s. 6d., and on his call to the Bar £89 2s. 4d. The deposit is £50. The cost of each dinner is 3s. 6d. Lincoln's Inn fees are: Admission, £40; Deposit, £50; Term fees, £1 1s.; Call fees, £94. Middle Temple: Admission, £40 6s. 3d.; Deposit, £50; Term fees, 10s.; Call payment, £99 10s. Inner Temple: Admission, £40 11s.; Deposit, £100; Term fees, £1 1s.; Call, £94 10s. In addition to these expenses, which, as will be seen, are, within a few pounds, identical at the four Inns, is the extra one for coaching with some barrister, and, of course, living expenses during the three years of term-keeping.

All examinations being finished and the student having become a full-fledged barrister, by being duly called, which event he will celebrate with a dinner to his friends, the

next thing to be done is to establish a practice; and during the years which ensue between the call and the obtaining of sufficient work to enable the barrister to make a living, an allowance, varying with the means at his parents' disposal, but in any case not less than £150 a year, must be made. Many men begin work by "devilling" for established men, others attend circuit, many turn an honest guinea by grinding students for examinations or writing for the Press, while some seek their fortunes in India.

Influence may bring an appointment as Revising Barrister for Registration purposes, and the judges appoint a member of the Bar to accompany them on their circuits as Registrar. The barrister who has a knowledge of Science, Mechanics, etc., and has, say a B.Sc. degree, will find the Patent Law a very lucrative subject of study. Many eminent Patent lawyers are associates of the Institution of Civil Engineers, Electrical Engineers, etc. Many barristers who have not the necessary abilities for becoming a great advocate specialize in a particular subject, *e.g.*, Patent Law, Divorce and Admiralty Cases, Company Law, etc., and find it a remunerative pursuit. It should also be stated that the British Colonies admit to their Bars, English and Irish barristers on nominal terms, so that a barrister is practically able to practise where the Queen's sovereignty obtains.

It has now been arranged between the English and the Irish Bars that members of three years' standing at either Bar can, on production of a certificate to that effect, and on keeping three terms, be called to the Bar of the other country. The Irish Bar necessitates practically the same fees on admission and call—about £135; the length of time occupied is the same—three years; but the expense of living in Dublin is less, and a man with influence may obtain a position as resident magistrate when of a certain standing. There is only one Inn in Dublin, the King's Inn, Henrietta Street, and the official to be addressed is the Under Treasurer. In Ireland there are positions given to barristers as Junior and Senior Crown Prosecutors at the various country assizes, which are obtained by influence and distinction duly commingled.



In Scotland, the Faculty of Advocates represents the Bar, and the holder of the legal degrees of Glasgow and Edinburgh will have no difficulty and no very great expense in becoming an Advocate. The subjects of examination are, of course, widely different from those in England and Ireland, Scots Law being a separate entity; but the cost and time are practically the same, the expense of living, it is well known, being less in Edinburgh than in the other capitals.

In one way the Bar differs from many other professions—the same percentage of medium incomes are not made therein. Before success comes, the fees earned often scarcely suffice to pay a man's washing bill; but when once fortune smiles upon the barrister, his income increases by leaps and bounds, and he finds himself overwhelmed with briefs, so that to accept a judgeship means considerable loss of income. The barrister who is also a politician will find his way into Parliament, and either works for political prestige or for a judgeship. The Attorney-General and Solicitor-General are selected from the rank of prominent political lawyers who have done good work for their party, and are sure of a seat on the Bench. The prizes in the profession are great, but they are more than a little difficult to win.

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## The Law—Solicitors

A LOWER branch of the law, but in the aggregate a more profitable one, is that which comprises solicitors.

The social position and high prizes that fall to the share of barristers are wanting, it is true; but then a lesser scale of ability is required to earn a "living wage," or, in other words, to make a comfortable income; and mediocrity, the common lot of mankind, has here a chance, while in the other branch of the law it has none at all. But it must not be imagined from this that the profession is an easy one, or to be undertaken without due consideration, for it is a tax on the abilities, and above all upon the qualities, possessed by the man who adopts it. A good memory is perhaps the greatest essential; nothing, not even medicine, taxes this like the law. Then the solicitor must be possessed of a large amount of tact, of patience, and of temper. Legal work possesses many attractions for certain minds—the well-balanced and calculating pre-eminently; and unless this attraction, incomprehensible to a great many, is present, it is useless inducing a boy to take up the profession: he will never succeed in it.

Really to succeed in this profession—and here by success is meant a large practice and a consequently large income—capital is most valuable, not only the capital sufficient to support a student while in his articles and to produce an allowance for some time afterwards until he has established a footing, but also to advance money to his clients, in loans upon real and personal estate, which is one of the most profitable parts of a solicitor's business. The expense of articles, nomination fees, stamp duties, etc., amounts to at least £400,

independently of the expense of maintenance if the lad has to go from home. Still, the possession of a large capital is in no way a necessity, and many flourishing solicitors have started absolutely devoid of any, beyond the small sum necessary for maintenance while they were articled clerks.

Three examinations have to be passed before a student can become a solicitor: the preliminary, the intermediate, and the final. But if the candidate be a graduate of any British or Irish University, or have passed certain examinations, he escapes the preliminary examination, while if he has graduated with honours he escapes the intermediate as well. The London or Dublin Matriculation also dispenses with the preliminary. The method of qualifying is, as most people know, for the student after passing the preliminary to be articled for five years to some firm of solicitors, who, in return for a premium varying from £100 to £350, instruct him in the subjects appertaining to the law, knowledge whereof will be required in the two latter examinations. Here a word of warning is necessary to parents. They can hardly be too particular as to the person or firm whereto they article their boy. In many cases he is left to gain knowledge as best he may, his chief being too busy, too lazy, and in not a few cases too ignorant, to give him the stipulated instruction for the "practice or profession of a solicitor." In other firms, the articled clerk is made a sort of "man of all work"; if he does not actually "polish up the handle of the big front door," he is made to do much copying work, and not unfrequently duties that should rightfully be performed by the office boy. Under these circumstances the articled pupil can scarcely be expected to turn out well, and if he does so, against such odds, it is all the more to his credit, and shows that he possesses a large amount of that inestimable quality called by our cousins across the mill-pond "grit." But there are also many solicitors who take a conscientious view of their duties towards their pupils, and fully earn the premium paid. In many cases extra expense is involved if the clerk has to be coached up for his intermediate or final examinations.

The preliminary examinations are held four times a year, in February, May, July and October, in London, Liverpool, Manchester, Leeds, Bristol, Newcastle, and Birmingham; and the candidate must apply in writing, at least thirty days before the examination, for permission to enter, to the secretary of the Incorporated Law Society, Chancery Lane, London, W.C., when a £2 fee is paid. The subjects are English composition and dictation, arithmetic, geography, history, and Latin, together with any two of the following:—Latin (advanced), Greek, French, German, Italian or Spanish. If algebra and Euclid be taken (as they may be) in addition to arithmetic, then only one of these languages is required. A month's suspense follows this examination, and then the candidate is notified whether or not he had passed successfully, and if the former, he obtains a certificate. Unsuccessful candidates may compete again on a further payment of £1. Having passed successfully, the student is articled to a solicitor. The intermediate examination has to be passed within six months of the candidate's completing his half term of service as articled clerk, unless he be exempted as a university graduate. The possession of a degree gives the solicitor a certain social status which cannot be disregarded. Thirty days' notice must be given, and the articles of clerkship, with a certificate of having passed the preliminary examination, must be sent to the secretary of the Incorporated Law Society. The fee for this examination is £3. He who fails to pass may compete at any other examinations on payment of £1 10s. January, April, June and November are the months in which the intermediate is held: and London is the only place of examination. When the period for which the clerk was articled is ended, the final examination takes place; the fee for attending this is £5, while for further entrance after the first failure £2 10s. is required. The final is held in London four times a year, as for the intermediate. Forty days' notice to the secretary of the Society is required. Those candidates who show sufficient ability are admitted to an Honours Examination held immediately after the final, and to the fortunate there are valuable scholarships, gold medals, and money prizes to be obtained as

the reward of success in the Honours Examination. The next step the successful candidate takes is to place his name upon the rolls and be admitted in the Supreme Court. A day is appointed by the Master of the Rolls for the admission of candidates to the roll of solicitors, and six weeks before this day the would-be solicitor must present a written notice, containing a statement of his place of abode and the name of the person with whom he served his apprenticeship. This is sent to the Petty Bag Office. A duplicate of this document is delivered to the Registrar of Solicitors, who will give a certificate, which is taken to Somerset House, where, after the duty of £30 is paid, a stamped certificate is granted. The solicitor is then at liberty to practise, but this certificate must be renewed every year. The annual stamp duty on the certificate is £4 10s. for the first three years, and £9 for each subsequent year, if the holder intends to practise within ten miles of the General Post Office, London. If outside this circle the duty is £3 for the first three years and £6 for every subsequent year.

The principal item of cost in preparing for this profession is, of course, the premium paid for an articulated pupil. This varies from £100 to £350, and a further £30 has to be paid upon the articles as stamp duty. Pupils are articulated for a period of five years, except in the case of undergraduates of London University, who need serve for four years only, and graduates of London, Oxford and Cambridge, who are only articulated for three years. No pay is given during this time.

When he has qualified, the solicitor will find that some time will elapse before he is able to dispense with parental support. A partnership is the best means of starting in the profession, but here capital is required, and without this advancement is slow. The county court and the police court, conveyancing, common law, chancery, and bankruptcy, are the matters falling within the solicitor's scope. Incomes vary so widely that it is difficult to give any figures; but the fees and emoluments earned by a country solicitor with a fairly numerous *clientèle* average from £500 to £800 a year and upwards.

Solicitors are especially fitted for such positions as Clerks

to the bench of Magistrates, Town Clerks, Coroners, Secretaries to public boards, County Council Clerks, etc. The Registrars of the County Courts, who receive salaries of £800 a year and upwards, are always solicitors. The opportunities for advancement as a solicitor are many. The following are some of the Civil Service appointments open to solicitors: Third Clerk in the Judicial Department of the Privy Council; open competition; age 15-35; fee, £3. Subjects—English Composition, Chancery and Common Law, and the practice of the Judicial Committee of the Privy Council. Candidates must be either barristers or solicitors, or have served three years as articled clerk. There are two clerks, with salaries of £250 to £400, and a chief clerk, with salary of £500 to £600. The Solicitors' Department of the Inland Revenue, the Customs, the Irish Law Commission, the General Post Office (London, Dublin and Edinburgh), the Office of Public Works (Ireland), the Office of Works (London), the Board of Trade, the Treasury, and the Office of Woods give employment to many qualified solicitors, whilst of course there are many appointments in the Royal Courts of Justice, obtainable by influence, for which solicitors are qualified. The Solicitor to the Treasury, who is also the Director of Public Prosecutions, is, like the Attorney-General and the Solicitor-General, a barrister, not a solicitor, as the name would imply.

The circumstances and expenses of the solicitor's profession in Ireland are identical with those of England, except that every clerk goes for a time to Dublin, and works there in the office of his principal's Dublin representative whilst preparing for his intermediate and final examinations. This increases the cost somewhat, as the English student only comes to London for his examination.

In Scotland the procedure is very similar to that in England, but the solicitors are there known as Writers to the Signet (the familiar abbreviation being W.S.), and a large part of their business is conveyancing. The term of apprenticeship is five years: the premiums, etc., are perhaps on the whole lower than in England; and in one respect the profession north of Tweed has the advantage, in that the

Procurators-Fiscal and Sheriffs-Substitute and Sheriffs are chosen from the W.S., these being well paid life posts. The Scottish law differs in many respects from the English and Irish, and a knowledge of the one is by no means a guarantee of even cursory acquaintance with the other.

The solicitor's profession is an honourable one, even if overcrowded; and the man who has a real liking for his work, some capital, some influential connection and much energy, will find it remunerative.

# Medicine and Dentistry

## A. MEDICINE

**L**IKE the poet, the doctor is born, not made, and unless a boy exhibits in his youth very distinct tastes for all that appertains to the noble art of healing, it is little short of a crime for parents and guardians to force this profession upon him. These tastes are, however, present in a very large number of children; they exhibit themselves in the treatment and care of sick pets, in the brewing of wonderful decoctions of wayside plants for the delectation of the said pets, and in the fascinating employment of dissecting dead mice and birds with an aged pocketknife, and boiling them into skeletons. Later on there comes a love of science, which makes this study at school a welcome one, more readily learnt than all the divers tasks that form the modern schoolboy's curriculum.

"But the profession is so overcrowded!" is the objection urged by many parents, when their sons declare their intention of becoming medicos, and they would fain dissuade them from that career, and induce them to turn their talents to something else; and this unfortunately is true, for the profession is crowded with men incompetent, insufficiently educated, and wholly objectionable, who by some means or other have scraped through certain examinations, and are duly "licensed to kill"—men who, for want of brains or application, or both, or who, by reason of their lack of steadiness, have failed to rise, and remain loafers, bringing discredit to an ennobling profession. For good men there is always room, and perhaps in no other profession does attainment of the highest prizes depend in so great a measure on



the qualities of the man himself, apart from any external influences.

The qualities required to ensure success in the medical profession are many; perhaps no profession makes greater and more varied demands upon a man's resources. Still, the very highest degree of skill is required, together with the capacity for hard mental work, and an open and appreciative mind, capable of following and understanding the scientific theories and discoveries which are of almost weekly occurrence in this age of progress. Then, too, a strong physique is essential. A doctor's time is never his own. He cannot choose his hours for work and his hours for rest; he is at the call of his patients during every hour of the twenty-four. Another quality is also most necessary—he must possess much tact and discretion, for the family doctor occupies the post of father confessor; to him the family secrets are confided, and he is introduced to the skeleton that lurks in every closet. His life is one of anxiety, responsibility, and hard work; but in return he has the satisfaction of knowing that he is of more service to humanity, more necessary for its welfare, than any one else.

The boy who intends to become a doctor has, in the first place, to pass some preliminary examination recognised by the General Medical Council—upon the subjects of English and Latin grammar and composition, mathematics, logic, and Greek or French, German, or any other modern language. A pupil at Epsom College who intends to go in for medicine will have advantages in the shape of exhibitions at some of the London Hospitals. Many other schools have one or more exhibitions or prizes at Hospitals. The preliminary examination may be passed in a variety of places, and particulars are to be had on application to the Registrar of the General Medical Council, Oxford Street, W. In London, students usually choose one of the three following examinations:—Matriculation of the University of London, Preliminary Examination of the College of Preceptors, or the Preliminary Examination of the Society of Apothecaries. The next step to be taken is to be registered as a medical student by the General Medical Council.

This done, the question to be considered is, the nature of the qualification to be obtained. The Universities, both teaching and examining, confer degrees in Medicine and Surgery, Bachelor and Doctor being the progressive stages: the examining bodies grant their diplomas as Member or Licentiate and Fellow respectively. The University degree entails an Arts education: the diploma does not. The former is the more expensive, and carries the more social influence; the time necessary for both is the same—five years. In order of severity and standing the Universities might be thus arranged: London, Cambridge, Oxford, Dublin, Edinburgh, Victoria, Royal of Ireland, Glasgow, Durham. The examining bodies, similarly arranged, would be (in each case the two colleges examine conjointly): Physicians and Surgeons, London; ditto, Dublin; ditto, Edinburgh; ditto, Glasgow. The peculiar position of Dublin, as the place to which all the medical and surgical cases of Ireland (except Belfast) go for treatment, gives to its surgical and midwifery schools a well-deserved repute for general experience and high standards of work. The diploma of the examining bodies does not strictly entitle the holder to style himself "Dr. Jones"; that is, at least nominally, reserved for the holder of a University degree. Beside the qualifications of Medicine and Surgery, there is also the Midwifery qualification, which every man, likely to take up general practice, will acquire. The examining bodies have their own schools of study, and the fees charged cover all necessary expenses. The University degrees necessitate attendance at a hospital, of which the better-known London institutions are: Bartholomew's, Guy's, St. Thomas's, Charing Cross, The London, King's College, University College, St. Mary's, St. George's, and the Middlesex.

As regards the two English Universities, Cambridge has at present the better reputation for its medical schools.

The course of study, say for the London Colleges diplomas, extends over five years, and there are five examinations to be passed. As everybody knows, medical students obtain a practical knowledge of their profession by "walking" a hospital, or accompanying the surgeon on his visits to the

wards of well-known hospitals, and witnessing operations in the operating theatre, as well as attending various lectures given at the hospital. The first examination is divided into four parts, three of which may be passed any time after registration as a medical student, but six months must be spent at a medical school before the fourth part (Elementary Anatomy) can be passed. The second examination may be passed after eighteen months' study, but not sooner than six months after passing the first; the third after four years' study, and two years after the second; and the final any time after twelve months after the third examination. The fees for these examinations are ten pounds each for the first two, and fifteen pounds each for the second two. These examinations being successfully passed, the student obtains a licence from the Royal College of Physicians of London (L.R.C.P.) and the Diploma of Member of the Royal College of Surgeons (M.R.C.S.). The fees for this course amount to about £160. The same remarks apply to the diplomas of the Royal Colleges of Physicians and Surgeons of Ireland, Edinburgh, and Glasgow.

Students wishing to graduate at the University of London have also several examinations to pass. First, the preliminary scientific examination; second, the intermediate examinations in medicine, the examination for the degree of Bachelor of Medicine, the examination for the degree of Bachelor of Surgery, and those for the degrees of Doctor of Medicine and Master of Surgery. The fee for each of these examinations is £5; but, of course, the fees for study at a hospital must be added to this in calculating the expense of qualifying. Books and instruments must also be included in the estimate of expense.

One thing about all these examinations which will be more appreciated by the students than their parents, is that any amount of time may be spent in qualifying for them, and students lazily inclined are often in no hurry to terminate the pleasant existence of "*lehrjahre*."

As to the expenses of this profession, besides the above-mentioned fees there are those for walking the hospital, and these vary with the institution selected. At Guy's Hospital,

the sum, if paid on entrance, is 150 guineas, but it may be paid in instalments of 40 guineas a year for four years; the London Hospital, 120 guineas (105 guineas in the case of sons of medical men); Charing Cross, 120 guineas, if paid in five instalments, 110 guineas in one sum; St. Thomas's, £150; "Bart's," £157 10s. In addition to these expenses, there are fees for attending various lectures, and occasionally sums to be paid for a little private coaching. But there are also a variety of prizes and scholarships to be gained by the hardworking student, which will greatly lessen his educational expenses. Most hospitals have from ten to twenty resident pupils selected from the students, who have special opportunities of learning their profession. It is very desirable that a student spend some time as resident or intern pupil or clinical clerk. The cost of living during five years has also to be considered, and the total expenses of qualifying can scarcely be estimated at less than £800, although in Dublin, Edinburgh, Manchester, and Glasgow the fees are not so high as in London, and other items may be cheaper. At Guy's Hospital, for instance, there is a residential college where comfortably furnished rooms with attendance may be had at the cost of from 10s. to £1 7s. a week, and like residential colleges are attached to other institutions.

The cost of a University course is, of course, the usual sum, £120-£180 a year, for maintenance and necessary expenses during the five years' term. Then come the fees extra. It may be said that the extremes of expense for qualifying as a doctor are £500 and £1,000. Diligent students can reduce this materially by winning scholarships (*e.g.*, £900 annually awarded at "Bart's"; several of £150 each at Guy's), and by obtaining one of the many resident appointments, which have the additional advantage of bringing the individual under notice of the visiting and consultant officers.

When the final is passed, and the student has obtained his degree or diploma, he is not entitled to practise until he has had his name entered upon the Register, in England, Ireland, or Scotland, as the case may be. A man who has qualified say in Ireland, must be placed on that register before he can have his name put on the English register. Medical men

are prohibited from advertising or from keeping a shop for the sale of drugs. A Licentiate of the Society of Apothecaries (Apothecaries' Hall, Water Lane, E.C.) may often be met with who gives medical advice, but the holders of degrees or diplomas cannot carry on business.

When the last examination is passed, parental expenses are by no means at an end, for the young man will certainly be unable to keep himself for a year or two at the very least, and if he intends to take up a practice, capital is indispensable, for even after a good selection of patients is gained, returns are slow to come in, and unluckily scarcely any profession has a larger number of bad debts to show than the doctor's. Many young fellows before settling down to a practice go as surgeons on board one or another of our large lines of steamers, thereby gaining that knowledge of men and things only to be acquired by travel. Others (the fortunate few having money at their disposal) reside for a time upon the Continent and take a degree at some foreign university, a necessity in many countries if practice therein is contemplated. The work done abroad is such that a course of study at Berlin, Jena, Brussels, Paris, or Vienna, is very valuable, even for those who do not intend to remain abroad.

Those who have in view the obtaining of a position as medical officer of health, will, after the expiry of the needed twelve months after registration, go in for the Diploma in Public Health, which is now considered essential for such appointments. These are granted by the Universities and by certain examining bodies, but the requirements are the same: a course of practical instruction of not less than six months in Sanitary Science, and a similar course of laboratory instruction in Chemistry and Bacteriology, and practical instruction in infectious disease. The medical officer of health will receive from his employers, the County Council, Town or District Council, a salary varying according to the size of the district controlled, from £100 to £700. In the case of London, Liverpool, etc., even higher salaries are paid; and all such officers are granted retiring allowances, which are equivalent to pensions.

Of course, this is but one of the forms of specialism of

which the medical profession holds so many. Every organ has its specialists, and a student who has distinguished himself in, say, the eye, will be well advised to study at Vienna for a couple of years, when, except for years and experience, he will be thoroughly qualified to start as a specialist.

Appointments as indoor and outdoor medical officers to workhouses are useful for making a start in a district, as they will ensure the rent and a little over, and bring one into prominence locally. It is well also to become attached to the staff of a hospital, as, though it is gratuitous work, it is well worth the time given.

Medical appointments in the Army and the Navy are valuable, inasmuch as the pay is good, promotion comes not as a favour but as a matter of course after the expiry of a certain term, and there is always the certainty of a pension. For more than one reason, the army posts have of late not been very popular; and although the re-organization of the Service, placing it in a better position under the title of The Royal Army Medical Corps, and granting the officers the long-sought-for combatant rank, has given satisfaction to those already in the Service, the War Office authorities have taken the step of asking the various qualifying bodies to nominate a student or students for admission to the Corps. It is better, therefore, only to say that a letter to the Director-General, R.A.M.C., 18, Victoria Street, S.W., will bring full particulars as to the regulations for entry, pay, retiring and pension terms, etc. The Director-General, Medical Department, Admiralty, S.W., will likewise give information concerning the Navy Medical Service, who are, if anything, more liberally treated than their colleagues serving with "the thin red line." In both services, valuable appointments beyond the usual course of promotion are open to men of distinction, and the certainty of a pension at 55 or 60 is a great inducement to enter. Physical health is essential for admission to both. Under the Indian professions, "The Medical Service" gives information as to the attractions of that branch, which are many. The Secretary of State for the Colonies, Downing Street, S.W., has many valuable medical appointments in his gift, of which particulars can be obtained on application.

B. DENTISTRY

THE position of the Dentist has improved very much of late, although he still has much to combat in the absence of prohibition against advertising, and in the want of protection against "dental associations," under which name many Americans trade. The dental profession is perhaps more advanced in America than in the United Kingdom; but that is no satisfaction to the dentist who sees himself cut out by the advertising American, of whose qualifications there is no examination. However, the man with a good qualification can always hope to obtain a better class of patients, and at higher fees, than his advertising competitors.

The length of time needed for a dental diploma is practically six years, and the course is to so large an extent identical with that for a Surgeon's diploma, that it is advisable, though of course not essential, that a lad should take the latter as well. Unquestionably it gives status, and is a valuable aid professionally: the additional cost is not great. The youthful dentist will be spending his time profitably at school if he gives much attention to chemistry and physics, as he will find these the subjects of his study for some time. The first step to be taken is to pass the examination for registration by the General Medical Council as a Dental Student, just as a medico has to become registered. The remarks on this head under A. MEDICINE apply, and the examination is the same. When registered, the lad is apprenticed for three years to a qualified Dental Surgeon as an assistant, and may have to pay a premium. The better the principal chosen, the more likely is he to demand a fee, varying from £50 to £250; and it is no wonder that he should, for the assistant is engaged in Dental Mechanics, and can spoil any quantity of valuable material, teeth, etc., whilst learning how to manipulate them. There is the alternative of two years' study at a school of Dental Technology; but as there is but one such school in England, and the fees are very high, the three years' apprenticeship is the usual course. At the end of this term, the student goes to work much as a medical

student would do: that is, he spends two years attending lectures and practical work, anatomy, etc., in the Medical School: he does general hospital work, of such a kind as to allow him a good chance of becoming a surgeon, and for at least a year after this he engages in special dental lectures and attends a Dental Hospital. He may do all his work in two years; but in such case he must work unremittingly all the time and give up the idea of taking the M.R.C.S. At Guy's there is a dental department which a student can attend, so as to pursue all the second term of three years at the one institution. The British Dental Hospital and the Dental Hospital of London are the two purely Dental institutions in London: and there are Dental Hospitals in Liverpool, Edinburgh, and Dublin, the former being associated with University College and the Victoria University. The fees for the diploma is £21, payable half in examination fees and half on the granting of the licence.

Three examinations have to be passed, Preliminary Science, First Professional and Second Professional: and the diploma is not granted until the student is twenty-one years of age. As a rule the dental assistants are apprenticed young, so that by hard work a man may come of age and gain his diploma in the same year. Although the course of study is longer by a year than that of the physician or surgeon, the expense of study is not so great, and this is an inducement to many to enter what certainly is a paying profession. The public are recognising the value of the care for the teeth as a factor in general health; and most schools and public institutions have, or should have, on their regular staff a visiting dentist. Again, the example of the French army in attaching a dentist to the various regiments is likely to be followed generally.

The diploma granted by the College of Surgeons and other bodies in dentistry is L.D.S., and only those who possess this are qualified to be entered upon the Register of Dentists. As the dental profession was only organized some twenty or twenty-one years ago, there are many men who were in practice before then and who were entered on the register by virtue of their standing. A feature of expense in the



dentist's career is the cost of instruments, which are many and expensive; he also has, if he does his own mechanical work, to lay in a stock of teeth, amalgam, alloy, and metals, and has to set up a workshop for himself or his assistants. Those men who desire to obtain a knowledge of the most recent discoveries spend a year in America at one of the recognised dental hospitals there, at a cost of some £100 or £150 for the course and maintenance.

The critical examination of the teeth in candidates for the army, the navy, the Indian professions, etc., shows how the Government recognise the value of the dentists' work; and the gradual disappearance of the old school of extractors, coupled with the application of scientific discoveries to dentistry, goes to show that a well qualified dentist has entered a profession which every year stands better in the public esteem, and affords opportunity for making a comfortable income. When the advertising abuse is stopped, this will be enhanced and the public benefited.

## The Church

ONE of the most important of professions, the subject of this article can scarcely be regarded as a profession in the ordinary acceptance of the word, for it is, or certainly should be, considered as something infinitely higher than the ordinary avocations of boys, which have for their object advancement in life and money-making. It is not saying too much to state as a hard and fast rule that no one should enter the Church unless he is irresistibly drawn thereto, unless he feels that it is the one and only sphere of work suited to him, unless he experiences a "call to teach and to premonish, to feed and provide for the Lord's family," to devote his life to the spiritual needs of his fellow-creatures, and, setting these aims above all others, to sink all personal objects and gains, thus following the maxims of his Divine Master. This rule is unfortunately too often disregarded, and it is by reason of this that so many abuses have crept into the Church of England, furnishing arguments that are readily seized upon by her enemies. That livings should be made a matter of traffic, that the highest positions in the Church should be obtainable through interest, are, of course, deplorable occurrences, relics of the good old days when might was right, and wrong became transformed in the hands of the rich and powerful. But in this respect matters are far better than they used to be, and, although aged and incapable incumbents still act as "warming pans" to family livings till such time as the youthful, and possibly unsuitable rectors-elect shall qualify for the appointment, the worst abuses have been remedied, and the Church of England now stands on infinitely higher ground as regards

doctrine, practice, and morality than at any time since the coming of Augustine.


Although differing so essentially from all other professions, the Church is distinctly a profession in that a careful training and long course of study have to be undergone before the most suitable of candidates can enter; most searching examinations, too, have to be passed. There are two ways of qualifying for the Church. First and foremost, the candidate can study and take his degree at one of the Universities in the United Kingdom. This method is undoubtedly the best when viewed from a mundane point, for Bishops invariably show a predilection for University men, and the important posts of the Church are given to those clergymen who have taken their degrees at one of the principal Universities. The second method of qualifying is to enter a theological college, of which there are now a number of varying importance and distinction: St. Bees, Birkenhead, Birmingham, Chichester, Cuddesdon, Dorchester, Ely, Gloucester, Highbury (London), King's College (London), Leeds, Lichfield, Lincoln, Salisbury, Truro, Warminster, Wells, and Wycliffe Hall (Oxford).

Taking the first method of qualifying, the candidates for Holy Orders can enter Oxford or Cambridge as a collegiate or non-collegiate student. The former is one who belongs to a college or hall, and who resides therein; the latter, on the contrary, does not belong to or reside in any college, but lives in lodgings duly licensed by the authorities. The entrance examination having been passed, the student has to spend three years at Oxford or Cambridge before taking his B.A. degree. There are two standards of examination for this degree, one called the pass and the other the honours; the former may be gained by any student of average ability, but the second requires diligent study and a large amount of brains. At Dublin University residence is not a *sine qua non*, but the candidate must pass his examination at Dublin, and he must show that he has attended Divinity Lectures for six terms or two years. The University of London does not require residence, but at the University of Durham two years' residence of eight months in each year is requisite.

If a theological college is chosen as the means of entry to Holy Orders, two years have to be passed at one of these institutions. As the name betokens, the curriculum is wholly theological, and the aim of these institutions is to supply the pastoral experience and special instruction unattainable in the general course of instruction given at Universities, where social, literary, classical, and general knowledge form the subjects of study. The cost of the courses varies in each of the Colleges, but £100 a year may be taken as the expense in most, except Ely, which is for graduates only, and costs £120 a year. Many men having obtained their degrees at Oxford or Cambridge pass a year or two at one of the theological Colleges, in order to obtain such special knowledge, and this is the very best way of preparing for a clerkship in Holy Orders.

When the candidate has successfully passed his examinations at one of the Universities or theological Colleges, he must offer his services to the Bishop of the Diocese in which he wishes to be ordained as deacon. The application, enclosing qualifications and testimonials, has to be made three months before the ordination. An interview with the Bishop or one of his chaplains follows, and a preliminary examination in Scripture, Greek, and Church history takes place. The candidate has next to pass an examination for deacon's orders, but before he is ordained certain papers must be sent to the Bishop's secretary; these include certificates of having attended divinity lectures at one of the Universities or theological Colleges, College testimonials, a testimonial to be signed by three beneficed clergy, and countersigned by the Bishop if of another diocese; and last, and most important, the nomination to a curacy, without which no candidate will be ordained. To pass the examination a thorough knowledge of Latin is necessary, and candidates have to write a sermon, some portion of which has to be read aloud. A clear distinct enunciation should be a part of every clergyman's stock-in-trade. No deacon can be ordained before the age of twenty-three, nor can he take priest's orders before twenty-four.

Of the qualifications requisite for the sacred profession



none perhaps are more needed than wide-mindedness, toleration, and sympathy; earnestness, great earnestness there must be of course, and the clerk in Holy Orders must *live* his profession, carrying out every axiom in his daily life, but he must also sympathise and be in touch with those who in many points differ from him. The man appointed to a cure of souls has many varying natures and ideas under his care, natures often antagonistic and requiring much understanding and thoughtful treatment. He must be acquainted with the spirit of the age, for otherwise he will lose all influence with the thinking portion of his congregation; above all, he must be tolerant to others and so act that he shall give offence to none by his extreme position on any disputed subject. It is just the want of these qualities that is the cause of the unhappy but too frequent friction between the vicar and many of the influential residents in his parish. Many delicate boys are destined by their parents for the Church, as of course no medical examination has to be passed, but although in theory robust health is not a qualification, yet in practice it is decidedly so. For the work of a country parish, good health is essential; weather has to be disregarded, services undertaken and parishioners visited, despite rain, snow and nearly impassable country roads; moreover, the incumbent should be able to enter into the pursuits of his congregation. The muscular Christian who can organize the village football club and knows how to use a bat is he who gets on best with a rural population. But although robust health is often necessary, it is not essential. Many men take Holy Orders for the purpose of conducting missions and preaching; of teaching and of living in communities, which involve less continual strain and demand upon the strength than work in a crowded town parish or in a scattered agricultural district.

The cost of entering the Church is not small, where a University education has to be considered, even at the Colleges where the most moderate fees obtain. The expenses of a non-collegiate student at Oxford are, of course, less than those of a collegiate student, as the former has no College charges to pay; with economy his living expenses will

amount to something like £2 a week, and his expenses during term time might not exceed £80 a year. For needy collegiate students Keble College offers the greatest advantages, for the total expenses for board, tuition, and College charges amount to £81 a year, while at other Colleges these same items cost from £100 to £160 a year.

The expenses at Dublin and Durham Universities are less, as a two years' course, instead of three years, is required. Again, the expenses of a theological College are less than at Universities directly, but more especially indirectly, for at the former the student has not the same opportunities of mixing with the rich and extravagant, and of being thus led to expenditure beyond his means.

What are the prospects of a young man in the Church? Certainly not encouraging to those seeking a good income, for the Church Militant in bygone days distributed her loaves and fishes without discrimination, and while many rich livings have small populations and little work, the incumbents of crowded parishes have often a struggle to make both ends meet. The Clergy Sustentation Fund is certainly doing its best to render things more equal; but while there exist a large number of livings worth less than £50 a year, and a larger proportion under £100, this is a difficult matter. The pay of junior curates ranges from £80 to £140 a year, and that of senior curates to £200; indeed, often curates are better paid than the holders of livings, but many augment their incomes by tuition. The average country living ranges from £200 to £400 a year *gross*, often subject to much reduction, and to obtain a living above the latter rate is a piece of good fortune. Army and Navy chaplaincies, which are obtained by influence, offer many inducements to men fond of a varied life; and the pay, if not large, is fixed. Army Chaplains on probation are paid at the rate of £180 a year; fourth-class chaplains the same, and 12s. 6d. a day after five years' service, ranking as captains. Third-class chaplains, ranking as majors, receive 15s. a day; second-class, equal to lieutenant-colonels, 17s. 6d. a day with allowances; and first-class chaplains, as colonels, £1 a day with allowances equal to £150 extra. After five years' service, first-class

chaplains receive allowances between £550 and £600 a year. These like the Navy Chaplaincies, which are few in number, and which carry pay from £210 to £400 yearly, are pensionable, a matter of much importance to most people.

The question of the religious ministry in denominations other than the Church of England is by no means so easily defined. In all, a higher standard of education is being sought; and all the Nonconformist denominations have their training Colleges for candidates for the ministry, who do not require the aid of a book such as this. The advice of a clergyman is always freely given to the aspirant, who during his course of training is tested as to his mental and spiritual fitness for a position the nature of which is fully recognised.

In the Roman Catholic Church there is a regular course of at least four years in a Seminary or College (*e.g.*, Maynooth, Ireland; Ushaw, etc., in England; Paris, Louvain and Rome, on the Continent) where the priests for the parish work are educated both in the Arts and in the special religious course. The various orders, Jesuits, Dominicans, Franciscans, Redemptorists, Carmelites, receive their neophytes at varying ages, and submit them to a course of training, varying in character (*e.g.*, teaching as the Jesuits) and duration (fourteen years to three years being the limits) as is warranted by the nature of the work the future priest is intended to undertake. Here also the local clergyman will give sound advice as to the method of taking orders, and will usually advise the youth strenuously to consider within himself whether he has the qualities of mind and character needed for the sacred profession, which in the Roman Catholic Church stands on quite a different footing from the other great divisions of religious belief.

The Roman Catholic Church, the Presbyterian and the Methodist are represented on the list of Army chaplains, and their emoluments are identical with those mentioned above in dealing with the Church of England.

## Engineering

WITH the advance of civilization the need for engineers increases rapidly. As new countries are opened up roads have to be made, bridges built, railroads constructed, canals planned, and new cities laid out; while in the old countries the ever-changing and improving conditions of modern life continually require engineering skill to accomplish them. Every engineer is by reason of his profession an explorer and a pioneer. It is his business to investigate the secrets of nature and turn them to account, to arouse latent forces and employ them for the good of humanity, and to subdue and keep within bounds the mighty powers which uncontrolled prove a hindrance to man's handiwork.

The taste for engineering is one that shows itself early. From babyhood a child with this bent will amuse himself with building imaginary railroads and bridges and damming imaginary rivers, and later on he will show constructive talent by the manufacture of all manner of appliances which are to work wonders. The railway station attracts him more than any other locality, and he may be found at all times foregathering with stokers and enginemen, eager to gain all the knowledge available of the interior workings of the huge machines. The domestic sewing machine and the bicycle contain no mysteries, and he is on familiar terms with cogs, cranks, lugs, and sprockets. Without this decided bent for all things appertaining to machinery it is of little use to make a boy follow the profession of an engineer, as perhaps no other profession is more distasteful, uninteresting, and complicated to the boy who does not



enter into it ; it appears to be a taste impossible to cultivate. The remarks which follow apply equally well to the four great branches of engineering, viz., electrical, mechanical, civil and mining ; but of course the conditions in each will vary greatly with the locality in which the aspirant lives, and terms of premium and cost of education will be found correspondingly to differ. Under the head (Gold Mining and Assaying, p. 308) will be found details of the best course of education for the mining engineer. Electrical and mining engineering explain themselves ; mechanical engineering is concerned with the construction of machinery of all kinds ; and civil engineering (to be succinct), with the using of that machinery and natural elements (stone, iron, etc.) in the construction of works of all kinds, from a railway bridge to a graving dock or a water-works reservoir.

Engineering is a profession that has no hard and fast rules as to the age of entering it, and although it is, of course, desirable to begin young, it is a mistake to take a boy away from school at an early age to begin his special training for this career. When the boy's course at his ordinary school is finished he can qualify for the profession in three ways. He may for one or two years continue his engineering studies at one of the University or technical colleges or schools, or he may continue these studies in conjunction with attendance at an engineer's works, or he may be apprenticed direct. The latter course is not desirable, because though it promotes manual skill it does not develop the intellect which is so needful in these days of foreign competition. The technical schools have not in any sense been established in rivalry with works, but to teach the principles underlying the various trades in which they give instruction. A boy should, of course, have received a thoroughly sound general education before he undergoes the special training for the profession. Drawing and a knowledge of, and a taste for, mathematics are of the greatest importance, and modern languages will be found most useful during apprenticeship, and also in the engineer's after career.

In London the principal institutions for technical knowledge are the City and Guilds of London Central Institute

for the Advancement of Technical Education, Exhibition Road, South Kensington, S.W. (fees, £25 a year); the Crystal Palace School of Practical Engineering (fees, £52 10s. first year, £63 second); University College, with scholarships (fee for three years' course, £168 8s.); the Electrical Standardising Institution, Faraday House, Charing Cross Road (fee, £105 yearly); and the well-known Polytechnic School of Engineering, 309, Regent Street (fees, £12 12s. a year). University College, Gower Street, and King's College, Strand, have engineering schools. Leeds, Manchester, Sheffield, Bradford, Birmingham, Accrington, Blackburn, Rochdale, Bath, Plymouth, and Portsmouth all possess excellent technical schools, where the fees are considerably lower than in London; and at the University Colleges of Durham, Dundee, Liverpool, Nottingham, and Bristol good instruction is to be had, combined in the last-named town with the advantages offered by local firms of entrance scholarships to their works. Edinburgh also possesses a good technical school in the Heriot Watt College, where there is every convenience for experiment with apparatus of the most recent kind. Among other important colleges giving engineering instruction in the provinces are the Mason College, Birmingham; the Yorkshire College, Leeds; Owens College, Manchester; and Firth College, Sheffield.

If, in addition to the technical school, having qualified by the course of two or three years' training, the student continues his studies as apprentice to a firm, or if the technical school training is considered unnecessary, there are a large choice of firms ready to receive him on the payment of widely varying premiums. When the engineer student possesses any interest, that is to say, friends or relations with influence over or holding shares in engineering companies willing to exert themselves on his behalf, he is fortunate, for in that case the premium is considerably abated, and in some cases dispensed with altogether. Many of the principal railway companies take apprentices, but as they require them young no time is left for the technical school curriculum before apprenticeship commences. The Great Western Railway takes apprentices at Swindon.

Apprentices must be between 15½ and 16½, and have to serve for five years. Pay is given. A premium of £25 for the first three years has to be paid. The London and North-Western Company also takes apprentices at Crewe. The premium is £60, and seventeen is the limit of age. Pay is given, and the pupils must serve for three years, or until they are twenty-one. Of firms who take apprentices, there are Messrs. Crompton and Co., Chelmsford (electrical), premium £300; Messrs. Peckett and Sons, Bristol (mechanical), premium £100; and the Brush Electrical Engineering Works in Queen Victoria Street, premium £300.

The cost of entering the profession varies, as will be seen from these figures. The most moderate method of qualifying, and one that is certainly practical, is to become apprenticed to one of the railway companies. The most expensive, but at the same time the very best course, is to select some technical school or college in the same locality as a good firm of engineers, and, after a year's study therein, become apprenticed to the firm, continuing at the same time the course of study at school. The cost of the former study will be under £100, while the latter will range from £200 to £500. Some companies return part of the premium as wages, others do not. When the pupil has been duly qualified it may be some time before he earns enough to be self-supporting; as in other professions, there is an element of uncertainty, and it would certainly be wise to provide a sum sufficient for his sustenance for the first year or two.

As for the prospects and pay in the profession, they are varied and uncertain. There are many Government appointments open, with their sure, if not large, salaries; there are posts upon the railways and in the shipping companies, and excellent billets obtainable in large private firms. Very frequently, if the student shows ability and makes himself valuable to the firm with which he is apprenticed, he is retained when his time has expired. If he makes up his mind to go abroad, there are openings in the colonies, more especially in Western Australia; and South Africa, too, offers unlimited prospects to the skilled engineer, while in the mining districts there is always work to be had.

Electrical engineering is a branch by itself, and as electricity comes more and more into use so does the need of men skilled in this special work increase. The salaries of engineers vary with the style of work undertaken. The commencing scale, to be earned by a boy of twenty or twenty-one, who has just qualified, is usually £100 to £120 a year, and the better paid posts for older men range from £500 to £1,000. There are some valuable prizes offered for the encouragement of mechanical engineers by the late Sir Joseph Whitworth. They are open to any British subject, provided he is not over twenty-six, has good health, and has worked for at least three years in the workshop of a mechanical engineer. These prizes consist of thirty exhibitions of £50 tenable for one year, and four scholarships of £125 a year for three years. A prospectus of these scholarships may be had from Eyre and Spottiswoode, East Harding Street, E.C.

Electrical engineering is likely to have great possibilities, in view of the electrical power being used for traction. Tramway companies, corporations, etc., using electricity as motive power, require skilled electricians who shall be fully equipped in all the details of their profession. Lighting also offers many opportunities, as it is more and more becoming general; and the installations of cities, great factories, etc., require competent men. There is also arising a class of consultant electrical engineers, who, like their consultant brethren in other branches of engineering, have filled various positions, the experience acquired in which, added to their studies and research, renders their advice of value to those who think of embarking capital in an electrical venture. In ordinary business lines (such as lighting of houses, wiring, etc.), an electrical engineer can engage with profit: and there are scores of places to be had—from the man in charge of an electric lighting-station test room, at £2 2s. or £2 10s. a week, to the superintendent of a telegraph company, with a salary of £1,000 a year.

The training for all branches of engineering is practically the same during the first two years. The civil engineer can best be defined as the man who does all that the elec-



trical, the mechanical, and the mining engineer do not do. He designs railways, bridges, harbour works, roads, etc., and the word "civil" is used to distinguish him from the Royal Engineers. The Institution of Civil Engineers, Great George Street, Westminster (which by-the-way includes all classes of engineers, although there is an Institution of Electrical Engineers, 28, Victoria Street, S.W., and an Institution of Mechanical Engineers, 19, Victoria Street, S.W.), devotes itself to the education of the young engineer, and holds examinations in February and October for admission of students. The subjects are English, mathematics (elementary and advanced), and two of the following: Latin, Greek, French, German, Italian, Spanish (only one language can be chosen), elementary physics, elementary chemistry, geometrical and freehand drawing. There are a number of examinations which are taken as qualifying in place of this preliminary examination, and others which are recognised as qualifying in respect of such subjects as are contained in the syllabus. The fee for the examination (£2 2s.) must be paid fourteen days before, and applications to attend must be in the hands of the secretary (who will supply the form) by January 1st and September 1st for the February and October examinations. When he is over twenty-five years of age the student can enter for the examination as Associate (A.M.Inst.C.E.), which is in two parts: the first, general knowledge (really the writing of an essay, one of half-a-dozen given subjects); the second, in scientific subjects, which the student will have worked up during his spare hours. The examination is a very difficult one, and many men are satisfied to go through life with this qualification. If the Council are satisfied that he has had sufficient training, has been engaged for at least five years, and is still engaged on the design of construction of such works as are comprised within the profession of a civil engineer, they may elect him an Associate on the writing of a satisfactory thesis or paper on a professional subject. A member of the Institution (M.Inst.C.E.) must be over thirty years.

The qualifications which exempt from the Associateship

examination, and which may be taken as being the alternative to the student course, are :—

UNIVERSITY OF CAMBRIDGE :—B.A. (Mechanical Sciences Tripos).

UNIVERSITY OF GLASGOW :—B.Sc. (Engineering).

UNIVERSITY OF EDINBURGH :—B.Sc. (Engineering).

VICTORIA UNIVERSITY :—B.Sc. (with Honours in Engineering).

UNIVERSITY OF DUBLIN :—B.A.I.

ROYAL UNIVERSITY OF IRELAND :—B.E. and M.E.

UNIVERSITY OF WALES :—B.Sc. (Engineering), provided that Mathematics be passed in the Final Examination for the degree.

Students of the Institution can compete for the Miller Scholarships of £40 yearly, tenable for three years. There are also scholarships given at the various colleges and universities. The Secretary of the Institution (to which an Association of Junior Engineers is attached) will send copies of the examination papers set each year.

Those who desire to study marine engineering must be apprenticed to a firm of marine engineers in Glasgow, London, Liverpool, Belfast, etc. ; and as a rule no premium is required, whilst a small salary is given during the five years' apprenticeship. After this, work on board ship is easily obtained, and a fair salary is paid, starting at £10 a month, with board. Chief engineers on the great liners are well paid.

Those who can afford to enter the Royal Indian Engineering College, Cooper's Hill, Staines, will find it an admirable place for training even if they do not go in for the Indian Services (see pp. 204, 208, 216, where the cost, etc., is given in detail).


## Chemistry and Pharmacy

**T**HE rapid strides made by Continental competitors with British trade in the application of Chemistry to industry and manufacture have been at last recognised, and in every place of instruction a prominent place is given to chemistry in all its branches. It is recognised that this department of knowledge is one in which the highly qualified are as yet few in number, and therefore a boy who has a liking for chemistry and research (sometimes showing itself in the production of noisome odours and in explosions) is safe to obtain a well-paid post when to his theoretical training he adds some practical experience in a special branch. For this, time and money are needed, but there are many helps on the way, and the clever lad may reduce the cost of his education in a material degree. For those who are less ambitious there is always the business of a dispensing chemist, which depends on locality and trade rivalry for success. The roads to these two means of livelihood vary, and the more inclusive profession shall be dealt with first.

It cannot be too strongly stated that success as an analytical, manufacturing, or advising chemist, is more likely to come to the man qualified with a University degree than to his unqualified rival. The B.Sc. of London University and the corresponding degrees of Oxford and Cambridge are the qualifications which tell, the chosen subject being, necessarily, chemistry in all its branches. The student who is going in for these degrees will, of course, have excellent facilities for practical work, which figures largely in the examination tests, and will find, especially in the older Universities, that

any distinction in research or in original work is well rewarded by the endowments for scholarships and continuance of research. These have increased of late and are likely to increase; so that there is every encouragement to the student who is fortunate enough to go to the Universities. The B.Sc. of London can be obtained only by thoroughly systematic and severe study, and there are now many opportunities for the laboratory work which helps so largely to success. The numerous Polytechnic Institutes in London, the County Council's Schools throughout the Metropolis, the Science and Art Schools (under the South Kensington Department), and the University Colleges, all give the less wealthy student opportunities which were unavailable twenty-five years ago. The City and Guilds of London Central Institute, South Kensington, is one of the best equipped places for chemical study, and it may be said that the student who has in view the B.Sc. degree of London or the other examining Universities, is at no loss for place of study. Then, too, the Science Scholarships of the Science and Art Department are available for the chemist, and are a valuable endowment to the middle class for whom Oxford or Cambridge is impossible.

Another method of becoming qualified as a chemist is the obtaining the diploma of the Institute of Chemistry (9, Adelphi Terrace, W.C.), which can be done by a non-University student, although the examinations are of equal severity, and it is a well-advised course to take if the student obtains a B.Sc. degree in chemistry and then tries for the F.I.C. The Institute's examinations are two in number, after a preliminary examination equivalent to the ordinary Matriculation of London. The technical examinations correspond to the second and final examinations for a degree, but are of a more searching character, and the holder of the F.I.C. is indeed a well qualified man. The fees are small and the examinations are held yearly, a similar period of study being required before the candidate presents himself at each. The preliminaries for study are similar to the degree examinations, and though it is possible for the boy in a chemist's shop to become F.I.C. by sheer energy and talent,





yet the ordinary boy will be the better equipped for his future by being kept at school until he has passed the London Matriculation (of course taking chemistry, etc., among his subjects), or until he has obtained a Science and Art Scholarship. So much valuable work has been done by German and French chemists that a knowledge of these languages is indispensable to him who ambitions a high place in his profession. The Chemical Society confers its membership only upon working and well-qualified chemists, and may not be taken into account in treating of the educational steps. The length of time taken in obtaining a B.Sc. degree or the F.I.C. is at least four years, and thus, supposing that a lad has begun at the age of eighteen or nineteen, he will be close on twenty-four before he is qualified in such a way as will be a passport to employment. The cost of obtaining these qualifications varies so greatly, according to position and the character of the diploma selected, that it is impossible to give an average; thus a lad living in London with his parents may obtain his B.Sc. London at a cost, including fees and all expenses, of £60, whilst an Oxford or Cambridge degree means at least an expenditure of £600. The former can be obtained by private study, but the student may require special instruction if backward.

During his progress to a qualification the student will do well to specialise in some branch of work, *e.g.*, the chemistry of the textile trades, dyeing, etc., the chemistry of the salt and soda trades, the chemistry of sugars, the chemistry of brewing and distilling, the chemistry of foods, or some one of the other numerous branches of manufacturing chemistry. Again, he may decide to specialise in analytical work (although this, of course, enters into all branches), with the prospect of working up a profitable connection as analyst to public bodies, large firms, etc., and as a consulting analyst. The analytical chemist has many opportunities: the growth of legislation against the adulteration of food and drugs has brought him into public note, and every County Council and Borough has its public analyst. These officers sometimes are local men, sometimes men practising in London or the nearest large provincial centre, such as Manchester, New-

castle, Bristol, etc., and they are paid either by a retaining salary of from £200 to £600 a year (according to the size of the district), or by a fixed scale of fees upon the samples submitted to them. In many cases they are retained at such a salary that their employers insist upon all their time being exclusively given to public work; in other events they are not deprived of the right to private practice.

The salary of a consulting chemist in a large firm is seldom below £200 a year, and ability is well rewarded. Dr. Ludwig Mond, of the famous alkali firm of Brunner, Mond & Co., Ltd., Northwich, is an example of the successful chemist in business. The final word has yet to be spoken upon the commercial value of chemical research, as witness the once much-despised gas-tar residuals, which now, as providing the material for aniline dyes, etc., are of more value than the coal from which they are obtained. It is therefore obvious that there is plenty of scope for the well-equipped, well-qualified chemist who is abreast of all modern efforts, and who, not content with defined conclusions, works on to find out new and valuable combinations of existing agents.

The Assistant of Excise who has a liking for chemistry may petition the Board of Inland Revenue to be allowed to receive a chemical education, and as a result of success in a technical examination, to join the staff of the Government Laboratory, Clement's Inn, W.C. The Assistant of Excise is chosen by a Civil Service open competition in the following subjects: Handwriting, English Composition, Arithmetic (elementary and higher), and Geography. He must be between nineteen and twenty-two years of age, and the examination is severe. After six months' service he can petition to go for the laboratory work, which is entirely technical and requires coaching. Two years' attendance at South Kensington is given and the theoretical and practical chemistry there taught is tested by examination, as the result of which the successful candidates are appointed temporary assistants, joining the permanent staff of analysts as vacancies arise. Six vacancies occur yearly in the staff of temporary assistants, and there are usually five to seven candidates for each vacancy.

The staff is as follows: Seven Second-Class Analysts, £160-£350; six First-Class Analysts, £400-£550; two Superintending Analysts, £600-£650; one Deputy Principal, £700-£800; and one Principal, £1,200-£1,500. The Government Laboratory does all the Government work from every department as required, and also the analysis of samples for prosecution under the Adulteration Acts. The well-qualified lad who is otherwise unable to get on as a chemist can do worse than undergo the Excise examination and spend six or twelve months at work in a brewery whilst he studies for the laboratory examination, which secures him a very well paid future, with the certainty of a pension on the usual Government scale.

Turning to the minor branch, that of Pharmacy, one finds that the qualifications are not so difficult to obtain. A lad is put into a chemist's shop as apprentice, a premium varying from £40-£200 being paid; if whilst at school he has passed the London Matriculation or the Oxford or Cambridge locals, he is exempt from the preliminary examination of the Pharmaceutical Society, which is a test in Latin, English, and Arithmetic, the fee being two guineas and the examinations being held twice a year. His articles will probably stipulate for a return of at least part of the premium in salary, and for spare time for study. When twenty-one years of age he can present himself for the Minor Examination of the Pharmaceutical Society, passing which he is qualified as a Chemist and Druggist. In addition to passing the standard, he has to bring proof of having been three years registered as a student or apprentice. The further examination, styled the major examination, qualifies as a Pharmaceutical Chemist; but the taking this, though entirely optional, is obviously a necessity to any man who wishes to take up the profitable business of dispensing. It is possible to have a boy taken as pupil to the dispenser in a hospital or infirmary, the work there being accepted for the examination. Many men who lack either the capital, the business qualities, or the desire needed for the starting of a shop or the buying of a business, endeavour to obtain posts as dispensers in a hospital, such positions being fairly well

paid. A head dispenser is certain of at least £300 a year in one of the great centres of population, but here again a man who is only M.P.S. stands a poor chance against the B.Sc. in chemistry or the F.I.C. who applies for the post. The University degree or its equivalent is rapidly becoming more and more a necessity for success; and although the M.P.S. or L.S.A. (as the licentiates of the Society of Apothecaries are styled) may by business qualities and a good use of his opportunities work up an excellent connection without any other diplomas, the man who wishes to do better than a shop with all its trials and worries and close attention, finds that he cannot hope for advancement without the passing of a qualifying test. Both in its theoretical and practical sides, chemistry has many prizes to offer to the student, and the continued development of our industrial enterprise along scientific lines is likely to make the field wider and more lucrative.

## The Mercantile Marine

“**A** LIFE on the ocean wave” presents an irresistible attraction to ninety-nine boys out of a hundred.

At some period in every boy's life the calling of a sailor appears to be in every way the one desirable profession : with many, of course, this is only a transitory phase, kept alive for a period by tales of adventure and derring-do ; but with others the love of the sea is lasting, and any occupation ashore, no matter how desirable in parents' eyes, is distasteful to the boy who is compelled against his will to remain a despised “land lubber.” Many parents have not the means of placing their sons in the Navy, for from the first day the boy joins his ship to the time when he is able to dispense with an allowance and live upon his pay, a goodly sum of money must be spent, and unless this is forthcoming it is useless to think of placing a boy in the Service. There remains the Merchant Service, a wide-reaching term embracing all manner of craft afloat, from the big liners of the P. and O. and Orient Companies to ocean tramps, going to all parts of the globe at their owners' pleasure, with ever-varying cargoes.

“But isn't the Merchant Service very rough, and isn't the food dreadful?” many a mother of a would-be sailor will ask. Yes and No. It may be or not, according to the method employed in entering the profession. The food used to be, and still is, in many cases, in spite of the Board of Trade regulations, poor and lacking in sufficient variety, but this is only on the lower class of ships ; in the better ones, where the regimen prescribed by the Board of Trade is not only adhered to but supplemented, it is sufficient and good. To

the lower class of ships also belong the undesirable features of roughness, low surroundings, and undesirable companions, whose still more undesirable language and ways form so dangerous an environment for well brought up boys—an environment justly to be dreaded by every woman anxious for the welfare of her son. True it is that many a lad sent to sea at an early age in the most casual manner, and left to shift for himself, has taken no harm from his low surroundings, and has risen above them to a good position; but the experiment is a dangerous one, and not to be recommended. Formerly many lads were so disgusted with everything upon their first voyage that they gladly left the sea to settle down to some occupation ashore; but if a lad be weakly inclined, if he be easily influenced for good or evil, or if he have within him any lack of moral stamina or a tendency to evil, the experiment is not lightly to be made.

The best way of qualifying for the mercantile marine, of ensuring the most desirable surroundings for a boy, besides the best for his ultimate welfare, is to send him to one of the excellent training ships of the Mercantile Marine Service Association to qualify. Perhaps the best in every way is *H.M.S. Conway*, the school-ship stationed at Liverpool. Here boys pass through a two or three years' training, when, having given satisfaction in every way to the commander, places are found for them upon well-appointed sailing ships, and as apprentices or as midshipmen in first-class steamers. The age for entering the *Conway* is between twelve and sixteen. Applications for admission of boys must be in the prescribed form, accompanied by a certificate of birth, a testimonial of good conduct from their last schoolmaster, or the minister of the church they attend, and a medical certificate that they are healthy. The same amount of physical perfection necessary for the Army and Navy is not required for entry to the *Conway*; but sight is an important point, and colour-blindness a total disqualification. A fairly good ordinary education is required, and a knowledge of Algebra and Euclid very desirable. The two years passed on board the *Conway* are happy ones for boys, combining the advantages and amusements of public school life with the pleasure

of being afloat and a sailor's life aboard ship. The regular instructions include great gun exercise, small arm drill, navigation, nautical astronomy, chart drawing, swimming, boxing, and fencing, and cutlass drill, manual instruction in sailor's work, physical drill, and gymnastics. French is taught, and also Latin and drawing. On two afternoons a week cricket, football, and outdoor sports are played on shore; and there are also concerts, lectures, a pack of beagles, and other recreations. The boys are under careful supervision, no bullying is allowed, and their welfare, moral and spiritual, is carefully attended to. There is a resident chaplain, and the *esprit de corps* is fostered by a ship's journal, giving all matters of interest to cadets past and present.

Prizes to the value of about £150 are given annually, the principal one being a gold medal from Her Majesty, offered to the boy who presents the qualities which, in her opinion, should make the finest sailor. Among the positions open to *Conway* boys, the India Office gives appointments in the Bengal Pilot Service (see article under this head in "The Indian Professions"), and the Admiralty gives six to ten appointments yearly as midshipmen in the Royal Naval Reserve. Further, the Royal Geographical Society, besides numerous other institutions, has endowed the school with funds for various prizes. In addition to this, it is a significant fact that many officers in the Indian Marine (the best position attainable by officers not in the Royal Navy) have been trained on board the *Conway*. No boy is forced to mount the rigging—that terror to weak-headed youths, so often resulting in disastrous accidents. If in reasonable time he cannot overcome his timidity, his friends are informed of the fact, and he is removed.

The fees for admission to the *Conway* are sixty guineas a year (payable £35 the first half year and £28 the second), which charge includes uniform and outer clothing, medical attendance, washing, use of books and school stationery. Five guineas extra is charged annually for those who join the Royal Naval Class. A reduction of these fees is granted to sons of nautical members of the Mercantile Marine Service

Association, deceased and unfortunate members of the Merchant Service, and officers of the Royal Navy. By the regulations of the Board of Trade it is necessary to spend four years afloat before any sailor can go in for the examination for second mate; but the parchment certificate awarded to boys who have spent two years on board the *Conway* is permitted to count as a year at sea, reducing the total time actually passed upon voyages to three. Another advantage is that many of the leading shipowners of Liverpool give preference to *Conway* cadets, receiving them as apprentices or midshipmen without a premium. There are many other advantages to cadets on board the training ship, too numerous to be entered into here; but all particulars may be had upon application to the commander, Lieutenant Archibald T. Miller, R.N., School-ship *Conway*, Liverpool. A fact that will be of much significance to the parents of future merchant seamen is that the demand among shipowners for *Conway* cadets is much in excess of the supply; and recently several well-known lines applied for twenty boys when none were available.

The *Worcester*, situated off Greenhithe, Kent, is another training ship which has the same advantages as the *Conway*. The fees vary slightly according to age—the lower school, in which are boys from eleven to thirteen years of age, representing forty-five guineas a year, payable in three instalments in advance; the upper school includes cadets of from thirteen to fifteen and a half years of age, who pay, as on the *Conway*, sixty guineas. Five guineas extra is charged annually for those who join the Royal Naval Class.

The fees in both cases include uniform and clothing, medical attendance, books, stationery, and laundry.

If the parents of a lad be not able to spend the sum required for a training-ship course, they can send him on board a sailing ship as an apprentice, paying a premium in most cases of from £15 to £40. Some lines take apprentices without a premium; but those who can afford to pay anything are well advised to do so, as they then have some claim for consideration in the event of the lad's ill-treatment. A glance at a London, Liverpool, or Glasgow directory will give the



names of scores of shipowners who take lads; but before coming to a final decision, the parents should make every inquiry. The natural tendency is to select the better-known lines; but as these, like the steamships, are mostly recruited from the training ships, one has to fall back upon the second class. The age for entry is practically thirteen to seventeen.

As mentioned above, a lad who, when seventeen years old, has served four years (three in the case of training ship cadets), can go up for the examinations (which are conducted by the Board of Trade) for a second mate's certificate. A first mate's certificate cannot be gained until the lad is twenty-one years of age, and has served at sea for five years—at least a year as second mate, or longer if engaged as third or fourth mate. The second mate's certificate does not mean that its holder necessarily gets a second mate's place. Candidates for the master's certificate must be twenty-one years of age, and have at least six years' service.

A distinction must be drawn between service on board sailing vessels, and steamships. The former will eventually disappear except for coasting purposes; and the Board of Trade are accordingly giving certificates to officers for steamers by examination and service. Unquestionably the steamships afford the best prospects, and should be looked for. In many cases the premium is returned, in whole or part, in wages during the apprenticeship.

"What are the prospects of the mercantile marine?" is a question that parents naturally ask. "What are the best positions attainable in the profession?" Certainly, as mentioned above, the best positions to be attained by merchant seamen are in the East, in the Indian Government service as officers in the Indian Marine, and in the Bengal Pilot Service. There are also good positions in the Indian Government telegraph steamers. Apart from Government appointments, there are those upon the various lines of mail steamers, bringing in higher pay than Government service, though for the most part the appointments therein are not pensionable. A notable exception to this is the case of the *P. and O. Company*, who provide liberally for the old age of their servants. Although the merchant service is below the Royal Navy in

point of position, the average of pay earned therein is much higher, a fact not to be despised in this age of increasing necessities, which to our forefathers would have seemed luxuries. In the Navy, officers pay for their food and servants, but a merchant seaman has no expense whatever on this account. The ship's owners provide him with food and service, and he has nothing but clothing to pay for, a state of things extremely rare in any other profession. Then, too, promotion is quicker and easier. The pay, of course, varies with the grade of officer and the line upon which he serves. Upon the larger lines to America, Australia, the Cape, etc., a captain's pay varies from £400 to £1,000 a year, upon the smaller ones from £250 upwards. First mates receive from £100 to £250 a year, and second mates from £50 to £180. The Eastern services are paid upon a higher scale, and in rupees.

Even though they get no pension on retirement, there are many good and lucrative berths open to merchant seamen. They may become Board of Trade inspectors, surveyors, and examiners, Lloyd's agents and surveyors, besides harbour masters and marine superintendents; while, if the seaman has been sufficiently fortunate to have served his time on a pensionable line, he can still obtain one of the above appointments, which will materially add to his income.

## Surveying

THE surveyor's profession is inclusive of three well-defined departments, viz., (1) land surveying, (2) building surveying, and (3) quantity surveying. These are widely different in the qualities they presuppose the youthful aspirant to possess, but in each case it is safe to say that capital, influence, and ability are needed for success. Land surveying is so closely associated with land agency, estate work, and the agricultural industry generally, that it is deemed advisable merely to mention it under this head, and to go into detail in the article entitled "Agriculture." Of course a person possessing the Fellowship of the Surveyor's Institution is, *prima facie*, qualified to carry out either land or building work; but in practice it is found that firms confine themselves to one class of work, or else that the partners are specialists in the different lines, and instruct their pupils accordingly. Many men combine the practice of architecture with that of surveying, whilst others specialise in valuation and assessment work; there are also those surveyors who act as advisers to the wealthy corporations, land companies, public bodies, etc., all of which are liberal in their views as to salary, fees, etc. The extension of our great cities has brought much work to the surveyor's profession: and many wealthy firms of surveyors have, in addition to their estate and house agency business, an auctioneer's business, which materially adds to the income. Property of the "brick and mortar" kind passes from hand to hand very readily, and the surveyor-auctioneer reaps a good profit by the transaction. Thus it will be seen that the profession is a wealthy one, that it affords considerable scope for energy, skill, and the

profitable use of capital, and that it is likely to grow even more than it has done during the past thirty or forty years.

The qualifications of Fellow of Surveyors' Institution and Associate of Surveyors' Institution (the address of the Surveyors' Institution is Great George Street, Westminster, S.W.), though not in any sense compulsory for practice as a surveyor, are, however, rapidly becoming recognised as a guarantee of a thorough acquaintance with the duties of the profession, and being granted only to those who have served an apprenticeship to a duly qualified surveyor, are unquestionably useful for obtaining employment in that period between the end of the apprenticeship and the starting on one's own account. As in the case of architects, most good firms expect their pupils to enter for the examination. The apprenticeship is a long one, seven years, and the premium to be paid varies with the standing of the firm; £200 is a fair average, and occasionally a salary is given during the later years of the apprenticeship. In selecting a firm, it is well to ascertain if it be associated with the Surveyors' Institution, as this body does not recognise all practising surveyors as eligible to give certificates of proficiency to pupils. The preliminary examination for entry as a student, who should be at least 18 years of age, is held every January in London and the principal provincial towns, the fee being £1 1s. It is written and *viva voce*, and includes Algebra, Euclid, English History, Composition and Dictation, Writing, and either Latin, French, or German. The certificate of having passed an equivalent examination (*e.g.*, University Matriculation, Senior Locals, etc.) in these subjects is accepted in lieu of the examination, which is by no means a perfunctory test. Half per cent. of the maximum marks must be obtained for a pass. Applications for permission to attend must be made on forms to be had from the Secretary before the 30th November preceding. It is desirable that would-be students should have passed an equivalent examination before leaving school, and that they should be apprenticed to a surveyor. When half of the apprenticeship has expired, the Student's Proficiency Examination has to be undergone, the presumption being that

the student is then 21½ years old. This examination takes place in London only, in the month of March, and the fee is £3 3s. Up to this examination the pupil will have made a special study of the branch to which he intends to devote himself, and he is examined in this only at the Proficiency and Fellowship Examinations. The nature, experience, and value of his three-and-a-half-years' work are tested in this examination, in which at least half marks must be obtained for a pass. If the student fails to pass this, he is not allowed to try a second time, but is obliged to go on, and at the end of his apprenticeship submit himself to the Fellowship Examination, in which 60 per cent. is necessary for a pass. The subjects for the Fellowship Examination, which is held in March, in London, and the fee for which is £3 3s., are the same as in the Proficiency Examination; but a more searching inquiry into the pupil's knowledge is made, and the successful passing of the examination is a matter for no slight congratulation.

The passing of the Proficiency Examination entitles one to use the style of Associate of the Surveyors' Institution. The Fellowship is not granted to persons who are under 25 years of age.

It will be seen that for practical purposes the parent of the would-be surveyor has to expend the amount of the premium, and also the cost of maintenance in London or elsewhere if he leaves home.

When qualified as F.S.I., the surveyor may decide to open a practice in his special branch of the profession, which needs some capital; or may take a position with a large firm, perhaps his principal's, and save his salary to form capital for the time when he hopes to make profit for himself. The system of assessment by local bodies for rating purposes which obtains in England and Scotland has raised up a special branch of surveyors, whose business it is to carry on the work of an appeal from what the owner of property considers too high an assessment. This is a lucrative business, if a connection is established. The value of capital to a surveyor, who is also a house and estate agent, lies in the fact that an advance to his principal on account of rents to

be recovered later gives a very profitable return on the money advanced, which is well secured. The rates of commission charged in this branch of business are practically agreed upon, and the following figures have official recognition. Of course arrangement for a stated sum is often made, but when it is not so stipulated, the following terms are applied:—

For the sale of freehold and copyhold estates and houses, and ground leases, by private contract.—£5 per cent. on the first £100; £2½ per cent. up to £5,000; and on the residue above that sum £1½ per cent.; and the usual commission in addition on the amount paid for fixtures, furniture, and effects.

For letting unfurnished houses, or disposing of leases other than ground leases, by assignment or otherwise.—Where the term is for three years or less, £5 per cent. on one year's rent; where for more than three years, £7½ per cent. on one year's rent, and (in either case) upon the premium or consideration £5 per cent. up to £1,000, and £2½ per cent. on the residue, and the commission on any sum obtained for fixtures, furniture, or effects of any kind, of £5 per cent. up to £500, and £2½ per cent. on the residue.

For letting furnished houses, in town or country.—When let for a year or less period, £5 per cent. on the rental. When let for more than a year, £5 per cent. on first year's rent, and £2½ per cent. on rent for remainder of term. Where a property is let, and the tenant afterwards purchases, the commission for selling will then become chargeable, less the amount previously paid for letting.

For valuations or sale of furniture, fixtures, and other effects.—£5 per cent. up to £500, and £2½ per cent. on the residue.

For valuations of furniture and effects, for probate or administration.—£2½ per cent. on the first £100, and £1½ per cent. on the residue.

For valuation of properties, for sale, purchase, mortgage, or estate duties.—£1 per cent. up to £1,000, 5s. per cent. beyond, on full amount of valuation. In valuations for mortgage, if an advance is not made, one-third of the above scale, the minimum fee to be £3 3s.

For negotiating the purchase of estates, houses, and ground leases.—£2½ per cent. up to £500, and £1 per cent. beyond that amount.

For negotiating the taking of furnished or unfurnished houses.—Half the scale for letting.

For letting building land.—Amount of one year's ground rent, or by agreement.

In addition to ordinary business opportunities, there are for the surveyor the posts in connection with Borough Corporations, County Councils, etc., the salaries of which run from £250 to £1,000, or more in the case of the great cities: in many of the smaller cities and towns, the surveyor is not compelled to give up private practice, but is allowed to continue this in addition to their special work, which is often paid by fees, and not by a salary. Usually these posts carry a pension or retiring allowance, at the discretion of the body in question.

The Board of Works Office in England employs four first-class surveyors (£800 to £1,000), three second-class (£500 to £700), ten first-class assistants (£310 to £400), and twelve second-class assistants (£150 to £300). These officers are appointed under the usual Civil Service examinations, and are of course entitled to pensions. Vacancies are not many, but particulars can be had from the Civil Service Commission, Westminster, S.W. The same applies to the War Office staff, the Navy staff, the Prisons staff, the Board of Agriculture staff, the India Office, the Post Office (which employs a large number of surveyors), and the Irish Board of Public Works, all of which entail the employment of surveyors at salaries ranging from £150 to £1,000, under the usual conditions as to retirement, pension, etc., of the Government Service. Details of the appointments of County Surveyor in Ireland, and Surveyor and Valuer in the Valuation and Boundary Survey Department of Ireland, are given under "The Civil Service" (pp. 33, 34). Eminent surveyors are often engaged by the Government in cases of compulsory purchase of property, and their services as arbitrators in such cases, dilapidations, etc., are often in demand. The surveyor who is also an architect, a valuer, or an engineer,

is likely to increase his connection and add to his business.

The profession of the quantity surveyor is to the outside public almost unknown: but it is one of those professions which flourish, and whose members are usually wealthy. The quantity surveyor is, though acquainted with the general details of his profession, not in practice as is the building surveyor: his duty is to come between the public and the builder, to regulate the latter's charges, and to supervise the preparation of the particulars upon which an agreement for work is drawn up. Thus his business comes to him from builders, architects, public bodies, etc.; and his fees are either a commission on the transaction, or a fixed sum, as may be arranged. The education is precisely that of the other: the pupil chooses to be apprenticed to a quantity surveyor, and to adopt that branch of the profession. The premium charged is usually more than in the case of land or building surveyors. The number being comparatively small, employment is a certainty: and the quantity surveyor must continue to have practice so long as building goes on and both sides, builder and capitalist, wish to have their bargains checked and their basis of agreement made out by an impartial authority. The work is of the non-speculative character, involves much detail of calculation, and is highly remunerative.

The surveying profession is, on the whole, a profitable, respectable, healthy profession, needing industry and a natural aptness, to be added to fortune or the possession of capital, to ensure success. It involves considerable initial expense, which is well repaid.



## Architecture

**T**HE profession of Architecture has been so much improved, thanks to the efforts of the Royal Institute of British Architects, that, although any person may style himself an architect, the possession of the Institute's qualifications will ere long be considered a necessity by any one wishing to practise. But these examinations and tests do not, and are not intended to, take the place of the practical work in an office: they indicate the student's progress and direct his energy towards certain points of his profession.

The architect is, speaking generally, born, not made. The boy who has a natural aptitude for drawing and for the study of geometrical design, and who shows himself the possessor of the constructive faculty, is he who should be apprenticed to the profession. There is no use in putting forward the architectural profession to a lad who is intent on natural history or the law: and the parent who desires in a short time to see his child self-supporting will be well advised to consider matters fully before coming to a decision; for although there are chances of quick advancement in this profession as in others, it is more likely that he will not become independent for some time. The advantages of a good education are great, as the student is called upon to exercise his judgment in matters of taste, to which end a thorough school course is very useful. The art of Architecture embraces the whole circle of the sciences, induces a spirit of culture and refinement like to that of the painter

or the musician, and has a high place in the estimation of the public. Representatives are elected to the Royal Academy, and honours have been conferred on prominent architects for centuries, one of the most famous being Sir Christopher Wren.

One of the important questions to be settled, when the profession is decided upon, is the selection of the firm to which the pupil is to be articulated. In direct proportion to the standing of the firm are the opportunities for making a full and complete acquaintance with the profession, and also the premium required from pupils. £100 to £300 are asked from intending pupils, and seldom, if ever, is a salary given during the period of Articles, which are usually for five years or until the pupil is twenty-one years of age. If possessed of exceptional talent, a boy may pass the Preliminary Examination of the R.I.B.A. and obtain a situation, with a small salary, as a junior assistant or drawing clerk: and many good firms now require that their articulated pupils shall also pass this test of their education and general fitness. Drawing is, throughout the architect's career, an essential, and the subjects of the Preliminary Examination, which is held twice a year, in November and June, and which admits to the Register of Probationers R.I.B.A., are as follow:—

|                                                                                                                     | Marks. |
|---------------------------------------------------------------------------------------------------------------------|--------|
| 1. Writing from Dictation . . . . .                                                                                 | 40     |
| 2. Short English Composition . . . . .                                                                              | 40     |
| 3. Arithmetic, Algebra, and Elements of Plane<br>Geometry . . . . .                                                 | 100    |
| 4. Geography and History . . . . .                                                                                  | 60     |
| 5. Latin, Italian, French, or German: one language<br>to be selected by the applicant . . . . .                     | 80     |
| 6. Geometrical Drawing or Elements of Perspec-<br>tive: either subject to be selected by the<br>applicant . . . . . | 80     |
| 7. Elementary Mechanics and Physics . . . . .                                                                       | 80     |
| 8. Freehand Drawing from the Round . . . . .                                                                        | 40     |

Exemption from all subjects except 6 and 8 is granted to

those who have passed any University Matriculation Examination, the Senior Locals of Oxford and Cambridge, or other similar examinations: and if drawings (not exceeding four) which show acquaintance with these two subjects are submitted and approved, exemption from examination in these subjects will be granted. Those who cannot claim exemption will be examined in London and some of the great provincial towns, principally those in which there are Architectural Societies affiliated with the R.I.B.A., viz., Birmingham, Bristol, Cardiff, Exeter, Dundee, Glasgow, Leeds, Leicester, Liverpool, Newcastle-on-Tyne, Nottingham, Sheffield, York, and Dublin. The fee for the examination, for exempted and non-exempted candidates, is £2 2s.: and the Register of Probationers is kept at the office of the R.I.B.A., 9, Conduit Street, London, W. A second effort without fee can be made within twelve months.

During the two years following registration as a probationer, the pupil will pursue his work in an office, and an Intermediate Examination is then held, for which the probationer who is nineteen years of age can enter, the fee being £3 8s. These examinations are held in November and June. The application form has to be accompanied by particulars of the professional studies and education of the pupil, a certificate from the architect or master with whom he is engaged, and "Testimonies of Study." These latter consist of nine sheets (size 27in. × 20in.) of carefully finished drawings, to six of which an illustrated memoir is to be appended. Questions on these are asked at the Oral Examination; and the "Testimonies of Study" must be approved before the probationer is admitted to the examination. The subjects of the Intermediate Examination are as follow:—

|                                                                                                                                 | Maximum No.<br>of Marks. |
|---------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 1. Classic Ornament . . . . .                                                                                                   | 50                       |
| 2. The Characteristic Mouldings and Ornament of<br>each period of English Architecture from A.D.<br>1000 to A.D. 1550 . . . . . | 75                       |
| 3. The Orders of Greek and Roman Architecture,<br>their origin, development, and application . .                                | 50                       |
| 4. Outlines of the History of Mediæval and Re-<br>naissance Architecture in Europe . . . . .                                    | 75                       |
| * * The Papers to be illustrated by some Perspective<br>Sketches.                                                               |                          |
| 5. Theoretical Construction: Stresses, Strains, and<br>Strength of Materials . . . . .                                          | 75                       |
| 6. Descriptive Geometry: the Projection of Solids .                                                                             | 50                       |
| 7. Elementary Applied Construction: the Nature<br>and Use of Ordinary Building Materials . . .                                  | 125                      |
| <hr/> Total Number of Marks 500                                                                                                 |                          |

And oral examination on the various papers and the Testimonies of Study.

After the Intermediate Examination, the probationer is registered as a student, and he is not admitted to the Final Examination (qualifying for the Associateship) under twenty-one years of age. The fee is £4 4s., and the further progress of the student is tested by the examination, which is held in November and June. The programme is framed on the same principle as that of the Intermediate. The work to be done by the student, and submitted by him before entering, necessitates good draughtsmanship, and an acquaintance with ancient edifices, or other well-known executed works, to be gained by actual measurement of them. It requires a knowledge of Design and of the practical details of Construction, which latter can be best obtained by personal experience of buildings in progress. The "Testimonies of Study," with the concurrent work of preparation for this Examination, which is written, graphic, and oral, occupy the student not less than three years; and no one can be admitted to it under the age of twenty-one years, although

in most cases it will probably be found desirable that he should have attained the age of at least twenty-two before presenting himself.

In addition to the five "Testimonies of Study," sketch books and other evidences of the study of buildings and of travel are required, and evidence of the candidate's having followed the carrying out of building works. The student can select the special style of architecture on which he wishes to be examined. The subjects are:—Design, the Principal Styles of Architecture, the Arrangement and Construction of Buildings, Specifications and Estimating, and Construction, with an oral examination. The student who most highly distinguishes himself in the Final Examination becomes entitled to the Ashpitel Prize of books to the value of £10. The other prizes are:—The Institute silver medal and twenty-five guineas, open to those under the age of forty, for a review of English architecture of this century; the Measured Drawings' medal and ten guineas, for those under thirty; the Travelling Studentships, of which are the Soane Medallion, with £100, the Pugin Studentship, a medal and £50, for the study of mediæval architecture, open to those between eighteen and twenty-five years; the Godwin Bursary, £40 and medal, for the study of modern architecture abroad; the Owen Jones Studentship (£50) for the utilisation of ornament and coloured decoration; the Tite Prize (of £30) for a villa design; the Grissell Prize (£10) for design, and the Aldwinckle Studentship (£50), entitling the holder to spend eight weeks in Spain.

It will thus be seen that though there are valuable prizes to aid the deserving student, there are none to cover the entire cost of his professional education; and parents must be prepared to bear not only the premium asked by the firm, but the cost of living of the student during his five years of work—no inconsiderable item if he has to leave his home. A clever pupil may obtain a salary during his last year or two but this is not common, and if obtained it would be most judiciously expended in giving him opportunities to go abroad and study the architecture of France, Spain, and Italy on the spot.

The annual subscription of an Associate R.I.B.A. is two guineas; that of a Fellow, four guineas; and there is kept a register of architects seeking assistants, and another of assistants seeking employment, at the offices of the Institute, which is open to all members, students, and probationers.

When the student has successfully passed his Final Examination and then, later on, has become an Associate of the Institute, he will wish to put his knowledge and experience to the test of money earning: and nothing can be better than a place in a large office, where his previous experience will be ripened. He may be fortunate enough to find one or two others ready to join with him in the expenses of an office, and to unite their forces for the production of original, forcible work. Many architects obtain a position through winning a competition for designs for new public buildings, which are advertised in the trade papers and generally: the judging of these competitive designs is generally in the hands of the President of the Institute or the Institute's Council. The world is the architect's oyster, and the opening thereof depends almost entirely on himself. A fortunate chance may bring him instant recognition, with a growing practice and increasing income and position; whilst others have to wait and work patiently, in the hope that some day their value will be acknowledged. There is plenty of opening for the young, active architect with ideas, not too conventional, yet not-unpractical; and year by year the importance of travel and interchange of ideas becomes greater. Public bodies do not usually employ an architect except when actually needing his services; but such bodies as the London County Council retain an architect on their staff. There is a valuable school of Architecture at the Royal Academy, which works in connection with the R.I.B.A., and which awards valuable prizes.

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## Accountancy

THE developments of British commercial life along the lines of Limited Liability has caused the profession of the Accountant to grow in importance and dignity. His work has been increased, and likewise his responsibilities, so that gradually a high standard of professional and general education has been set up. It would be hard to say in what sphere of commerce the accountant is not required: and by the term accountant is meant not so much the *employé* who keeps his firm's books of account, but the expert professional man who practises in the same way as a solicitor, advising and acting when called upon by his clients. The work demands of necessity a thorough acquaintance with book-keeping, accounts and auditing, and, in addition, a knowledge of the laws relating to bankruptcy, limited liability companies, arbitrations, and that wide sphere known as Mercantile Law. A knowledge of languages is a great help in view of the constant interchange of business with foreign countries: the extent to which English capital is invested abroad is enormous; and, further, there is a constant supply of foreign undertakings being offered to the English investors. In connection with such matters the accountant is employed, first, to verify statements as to profits, etc., made by the present owners; secondly, to prepare estimates based upon an inspection of books for the purpose of the English purchaser (be he a member of a syndicate or a private individual); thirdly, to make an annual audit of the accounts, and, in the event of the undertaking not proving profitable, to act as Liquidator or Trustee in Bankruptcy, involving the realization and

distribution of assets. In addition to this work, there is a great field open in the annual audit of the books of private firms, preparation of the balance-sheets for the benefit of the owner or the partners, and not infrequently in giving expert advice on the future conduct of the business, so far as his knowledge of its financial position extends. It will thus be seen that there are many responsible and difficult duties falling to the lot of the accountant who acts for various clients: a quick grasp of the meaning of figures, strict secrecy and integrity, and a worldly knowledge of men and affairs. This can only be acquired by experience and practice; and the result is that the accountant has come to occupy in the estimation of business men a position of responsibility of considerable importance.

The man who, having become qualified as an accountant, is not willing to risk the chances of practising on his own behalf, has many opportunities of engaging in a lucrative position with the hundreds of manufacturing and mercantile firms who have made, and are making, British commerce. In each of these there is needed a man capable of controlling others in the proper discharge of counting-house duties, and of advising his employers continually on the progress of their business. Not infrequently does he attain to a partnership, and become the principal where formerly he was a junior *employé*.

Then, again, to the practising accountant who is well established come many opportunities of making money. His acquaintance with financiers, solicitors, and bankers is such that any business project introduced by him will receive thorough consideration, and, if thought suitable and carried through, bring considerable profit to himself. And so necessarily desirous is he of giving the *cachet* of his name to genuine schemes, that he will carefully inquire into those brought to him before himself submitting them to his friends.

Thus it will be seen that the profession of accountancy is one not devoid of responsibility, needing alertness of mind and readiness to comprehend character, and, above all, calling for probity of conduct.



If a lad shows an aptitude for business life, and is quick at figures, the choice of the accountant's profession is often a happy one. As the length of service for clerkship is five years, it is well to begin as soon as possible after sixteen years of age, as by the time he comes to man's estate he will be fully qualified to take his stand in business circles as a professional man. Graduates of a university serve only three years as clerk before proceeding to submit themselves for the final examination of the Institute of Chartered Accountants (Moorgate Place, E. C.), and they are exempt from the preliminary educational test, as are also persons who have passed the following examinations:—Oxford, the "Responsions"; Cambridge, the "Previous" exam.; Durham, second Arts; London and Dublin, the Matriculation; Victoria, the Preliminary; \*Oxford and Cambridge Schools Board, the Higher Exam.; \*the Senior Locals (and, if under sixteen, the Junior Locals); \*the College of Preceptors, First-class Cert. Exam.; \*the examination for commercial certificates (of the London and Manchester Chambers of Commerce) and the Home Civil Service, Class I. Boys who have no one of these qualifications are submitted to an examination held in the first week of June and December, in London, Birmingham, Manchester, and Newcastle-on-Tyne: in all of these towns chartered accountants practise. The subjects are Writing, English Composition, Arithmetic, Algebra (including quadratic equations), Euclid (the first four books), Geography, English History, and Elementary Latin; also any two of the following, of which at least one must be a language, to be chosen by the candidate: Latin, Greek, French, German, Italian, Spanish, Higher Mathematics, Physics, Chemistry, Animal Physiology, Zoology, Botany, Electricity, Magnetism, Light and Heat, Geology, and Stenography. Having passed this test, the future accountant is articulated to the firm or individual chosen, who, according to his own standing and the opportunities his office affords, will require a premium of from 100 to 300

\* In these cases the candidate must have passed in all the subjects of the Preliminary Examination of the Institute, except that he may substitute another subject for Latin.

guineas. In some cases a salary is given during the whole or part of the time ; in others no salary is given, so that the expense of maintenance still falls on the parent, if the lad has had to leave his home. After two and a half years, or, in the case of University graduates, one and a half years, he is tested by an examination, the Intermediate, in book-keeping and accounts (including partnership and executorship accounts), Auditing, and the rights and duties of Liquidators, Trustees, and Receivers. These three subjects are also included in the Final Examination, which cannot be undertaken until at least two years after the Intermediate ; one year in the case of University graduates. It also includes the following : Bankruptcy Law, Joint Stock Company Law, Mercantile Law, and the Law of Arbitrations and Awards. The passing of these examinations, which are held by the Institute of Chartered Accountants in England and Wales, entitle the neophyte to the Associateship of the Institute ; and after five years' continuous practice he can become a Fellow, designated thus A.C.A. and F.C.A. respectively. During the five years' clerkship, the budding aspirant is engaged in learning the details of office work, in studying the theory and practice of the subjects for the Intermediate and the Final examinations, and in carrying out such duties as his principal designs for him. Thus, if he be smart and quick, he will before long be sent out with an elder colleague to do auditing for one of the banks or commercial firms for whom his principal works ; he will see the general details and methods of commercial life ; he may be sent with others to America, Europe, Australia, or Asia to examine into and report on any business, the purchase of which his principal's clients may have in view.

No general statement as to salary during articles can be anything but misleading, the practice varies so greatly. Whether the articulated clerk receives a salary during his articles, and, if so, the amount of it, will depend partly on the practice of the office, partly on his aptitude and general behaviour. He will also ere now have more than a nodding acquaintance with men of position, whose influence will be

of use to him afterwards. At the end of his articles, he will probably have an offer from his employer to remain with him as assistant for a term of years, the salary offering being largely dependent on his past career and the qualities he has exhibited; and, if no other and better position offers, he will do well to remain there for a couple of years. By the time he is five-and-twenty, his personal character will have developed for good or ill, and he will have had the experience of several years' work in a position of greater responsibility than that of a clerk. Then, with a colleague, he may embark in a partnership in his own town, or elsewhere; perhaps by some special taste he may become an expert in the special accountancy work, *e.g.* limited liability companies, shipping, brewing, or what not. Every public body (Borough Corporations, etc.), requires experts as Accountants, and also as Borough Auditor, at good salaries. Again, there are positions in the Colonies and India open to qualified accountants, advertised frequently in the *Times* and the Colonial papers; so that, with the experience and the professional qualifications, the chartered accountant, if he be industrious, of good character, and reliable, need not despair of establishing himself as a prosperous member of our commercial community.

Beside the Institute of Chartered Accountants, the Incorporated Society of Auditors and Accountants conducts examinations and grants diplomas.

## Banking

**I**N commercial life the position of the banker's clerk is naturally deemed better than that of the employé of a mercantile firm; for he is engaged in work which gives scope for the exercise of any talents he may possess, his salary is progressive, his hours of work well-defined, and his holidays regular. He may remain all his life a junior, or he may rise to the position of manager of the bank's head office. Success in Banking depends entirely upon the individual, and in no other walk of life will business qualities be more generously recognised.

The first step is to get a nomination for a clerkship. This means that some influence is necessary, and the people who possess it are the directors and managers of the banks. The family solicitor can often give material aid in this direction, and the manager of the bank where the family keeps its account will be able to indicate the persons who give the nominations, if he does not himself take an active part in pushing the application. One important question is the selection of the bank chosen; sometimes this is fixed by the choice of the friends, and fortunate people who are able to do so will be well advised to get their candidate's name on the list of more than one bank. It is desirable, if it be possible, to settle upon a bank which has a large and increasing London business; the chance of being drafted to London is correspondingly greater, and although it may seem worthless to become one of a few score clerks, it must be remembered that the general managers are in London, the inspectors of branches are there, and opportunities are continually occurring which give the young clerk scope for the

display of his talents. The younger a lad is when he joins a bank, the better; from sixteen to eighteen is the age at which most enter, and when fifteen has been reached his name should be put forward and a nomination secured. When vacancies occur, those on the list will be called up in rotation, and subjected to an examination, varying in each bank, but capable of generalisation as being a test which a smart lad just leaving school should easily pass. Languages are not usually required, but a knowledge of French will be found of some value. English Composition, Arithmetic, the Elements of Book-keeping, and Algebra up to equations, and of course Handwriting: these are the subjects in which the candidates will be examined and should pass. Before long, without doubt, these test examinations will be put upon an identical basis in all banks, and possibly placed under some body like the Institute of Bankers, which at present is only concerned with those actually in the employment of bankers.

By far the greater number of banks are now Limited Liability Companies with a Board of Directors, and head offices in London, Glasgow, Edinburgh, Manchester, Birmingham, or Liverpool; and the few private banks which still remain throughout the country will obtain their clerks from personal knowledge of the candidate's relations, and will not be concerned with educational tests.

When the candidate has duly satisfied the authorities of his fitness for employment, he will be engaged and attached to a branch, generally a branch in which he is likely to gain a general knowledge of his duties. He will sign a declaration of secrecy as regards everything that comes to his knowledge, and this declaration must not be lightly taken. On it depends the confidence which the public place in the banking institution, and the young clerk cannot do better than forget all he has seen or heard during the day when he leaves the bank in the afternoon. The knowledge he has gained of methods and general principles he will retain and consider, but as regards the position of the bank's customers, their financial dealings and the like, he will be wisely silent, even to his family. He has signed a declaration which does not admit of any reservation, and to this he must adhere.

Many a lad fresh from school, and wondering at the information concerning others which he acquires, will be tempted to display his newly found knowledge; and nothing can be more injurious than the encouragement of his friends or relations in this respect. Reticence should be his motto, and very soon he will perceive the responsibility which his position entails. Needless to say, should it be found by the heads of the office that a clerk has been, whether thoughtlessly or wilfully, giving information of the bank's business dealings with its customers, dismissal will be the result; and although a severe warning may take the place of more drastic treatment should the offender be honestly unaware of the gravity of his act, a repetition will certainly merit the dismissal which would follow.

The question of salary is not capable of being dealt with on general principles; some banks do not give a salary for six or twelve months; others give a salary from the first, and from £40 to £50 a year may be taken as the initial sum whenever a clerk begins to receive a salary. At first, progress is slow, and for at least three years after a salary has been granted, the clerk will need some aid from his family, if he has had to leave home. A neat appearance must be presented, and the extent to which appearance counts in business is considerable. Banking hours for the public are from 9 till 4, but there is always some work to be done after the doors are closed, and punctuality is an essential; so that the clerk will find it better not to take advantage of any grace which individual managers may grant to their staff. The new junior will probably be employed in posting up pass books from the ledgers, in learning the routine of book-keeping, and in becoming familiar with the daily round of a bank. To him also will be entrusted "a walk," that is, the collection of bills and bank credits from other banks and business houses in a certain district. Here he will learn to keep his wits about him, for the "walk" clerk is well watched by those who prey upon the commercial community, and robberies are not infrequent when the clerk, standing at a counter, has his attention diverted by one person, whilst another rifles his satchel.

The good writer may often be kept at correspondence and ledger work when he may possess qualities far beyond his caligraphy but may have no opportunity for their display, but that is no reason for being a bad writer.

The various departments through which a bank clerk progresses are ledger work, counter work, accountant's department, stock and securities department, confidential correspondence, and manager's office. The latter are of course not the routine work, but the confidential and private matters, the letters relating to which do not pass through the usual correspondence room, and which necessitate daily contact with the manager and sub-manager. The ledger work is by its nature entirely book-keeping, and involves no contact with the public; whilst the counter work of paying cheques and receiving credits brings the clerk into direct connection with the public, and necessitates the possession of considerable tact and deftness. Very often the same man is kept at counter work for years because of his success, and his ready comprehension of the needs of customers who would be quite at sea if they had to deal with a stranger. The cashiers are therefore chosen from those clerks who have proved themselves in other ways, and who during the absence of the others have taken up the post with some success.

The accountant's department is a valuable place in which to learn some of the difficulties that beset a manager; and promotions are frequently made from the accountancy staff to vacancies among the sub-managers. Here, although the same is true to a less degree of all the other duties of the bank clerk, a constant demand is made upon accuracy in calculation, quickness in grasping figures, and the like qualities. The stock and securities department controls all the property deposited with the bank, either as security for loans or for purposes of greater safety; these may be scrip, bonds, plate, jewels, etc., for these things are frequently committed to the care of bankers. This necessitates direct dealing with the bank's customers, and the stock clerk will also gain a valuable acquaintance with the fluctuations in value of shares, stock, or bonds, which may be within his charge. Registers of the securities are kept, and a man who

is intimately acquainted with their value, present and prospective, cannot fail to be of service to the manager and to bring his claims for promotion under notice.

Whilst serving in these various departments the bank clerk will receive a progressive salary, and much will depend upon himself how this progress is accelerated beyond the usual rate. In fact, it must be admitted that no generalisation is possible; one man will join a bank and end his days as ledger clerk or cashier at a salary of £300, whilst another entering at the same time may be accountant at twenty-eight, sub-manager at thirty-five, and branch manager at forty, becoming general manager at fifty with a salary of £1,500, and retiring after twelve or fifteen years in that position with a pension of two-thirds salary, and a seat on the Board of Directors. Influence may avail somewhat; but the incompetent man will soon be found out, and so much depends upon these important posts being occupied by competent men, that his superiors cannot tolerate his retention of it, or will at least join with him some person capable of doing the more delicate work, leaving matters of routine to the other. The successful bank manager is not necessarily the most cautious man. Nowadays there is such competition among banks for business, that a manager finds himself called upon to advance money under circumstances which would have shocked his predecessors of fifty years ago; and the invaluable facility of discerning those to whom advances may be made and who may be refused will go far towards that desideratum, a satisfactory "branch return." Much is left to the discretion of the branch managers, but it is their duty to report to the head office all overdrafts above a certain amount; and if on inquiry being made by the inspectors, the manager is able to show that the business is profitable to the bank and that a connection is being built up without undue risk, the manager will receive not blame but praise.

A well-paid position of considerable responsibility is the representation of a bank in the Clearing House. The Clearing House, which does all the work of clearing up accounts between the numberless banks and branches, has its office off Lombard Street, and not all banks are given a seat in the



Clearing House, *e.g.*, the Scottish banks, even though they have an office in London, have to do their clearing through a London bank. The clerk who represents a bank in the Clearing House usually has been one of the sub-managers, or of like standing; and he is entrusted with a heavy load in looking after his bank's interests. His salary is good, and his future advancement certain.

Most banks have a pension fund, to which the clerks contribute in proportion to their salaries, and very often the yearly accounts will contain an item of money granted to this fund from the profits. The age limit does not operate in theory, but in practice the rank-and-file bank clerk does not stay at work over sixty-five. The hours are, as has been said, regular; every quarter there is a balance struck, which means a week or two of night work, and at the end of the year this is extended. Leave is granted to all clerks at such times as suit the bank's convenience, and of a length proportionate to service. Juniors often get their week's leave in the early part of the year, or the late autumn; and the privilege of three weeks in August or September is earned as the result of long and faithful service. Some bank managers have instituted a wise rule preventing clerks from marrying until they have obtained a minimum salary, usually £150; for they rightly consider that the *res augusta domi* may form a strong temptation to the man in whose hands are large sums of money. And in addition many banks consider it necessary that a bond be entered into by sureties on behalf of the young clerk, guaranteeing the bank against loss, up to, say, £2,000. If this be necessary, by far the most satisfactory way is to obtain, not the bond of private friends or relations (on whom any loss might press unduly), but the guarantee of the Guarantee Society, or some similar body. This relieves the relatives from any risk, and the small premium on the policy of guarantee is sometimes paid by the bank itself. The advantage of this plan over the bond of relatives is so clear that it only needs to be stated.

The bank clerk has but little opportunity of adding to his income; but in many of the London head offices work occurs in connection with the allotment of companies, for which

those concerned in the promotion usually pay; and this is one of the very few chances that fall to the bank clerk's lot. In small towns men have earned money by writing up tradesmen's books in the evening hours; but this has practically ceased to be.

The Institute of Bankers (84, Clement's Lane, E. C.) has done much to forward the educational status of the bank clerk in matters which concern his profession, and it is quite likely that this will be more fully recognised in the future as a means of testing the men in a bank's employ. The Institute deals only with those who are already bank clerks, and grants a certificate as the result of two examinations: one preliminary, the other advanced, held at intervals of twelve months. The subjects are arithmetic and algebra, book-keeping, commercial law, political economy, practical banking, and French or German. The last subject is voluntary. The certificate of the Institute, although of course it gives no index to the way in which the candidate will deal with the public, yet affords a considerable test of the advance he has made in his profession; and ere long it will be of some value in the question of promotion. Many of the older men attach no value to such things; but the boy who from this time intends to become a bank clerk will find that his two years of study for the certificate will serve him in good stead.

The qualities which are likely to aid a bank clerk are, first, those needed for any commercial pursuit—honesty, trustworthiness, reliability, and regard for his employer's interests; secondly, a grasp of the important place which banking occupies in the business world, an understanding of the safest methods to be pursued, and ability to judge character and business stability in others. The life of a clerk who does not rise to the managership of a branch is largely routine; after a few years interest in the work itself flags, and "the daily round, the common task" takes its place. Monotony will often affect a high-spirited lad and make a sensible man of him; the sedentary nature of the occupation may be unsuitable for some as regards health, whilst others will rejoice in the certainty which follows the conscientious

discharge of duty. As the marshal's bâton is in the knapsack of every soldier, so are the prizes of the profession open to all; and success comes to those who deserve it. The good will of the customers has done, and will do, much to bring a clerk under the favourable notice of his superiors; and a gentlemanly, affable demeanour to all who cross one's path should not need to be inculcated. There are no signs of any lessening in the influence and extent of the banking community: indeed, everything points the other way, and the young man who has secured a place in one of the score of first-class banks has no reason to complain of the prospects of promotion. In banking, as elsewhere, there is always room at the top.

## Actuary

THE actuary's profession is by its very nature limited in extent; but it is safe to say that nearly every member is in a position of independence beyond that of most professional men. Every Life Assurance Company has at least one actuary at its head office, whose duty it is to advise on special cases, value life interests in policies, calculate surrender values, and give instructions for the answering of fidgety people's questions on such subjects. His work will come with a rush after a public holiday, *e.g.*, Easter Monday, when all the elderly single ladies who stay indoors on account of the crowds write to learn the value of their policies, which, by the way, they have not the least intention of surrendering. Then the Crown in its various departments employs actuaries, and these gentlemen are subject to the usual Civil Service benefits of regular pay, and the prospects of a sure pension. There are many societies and companies which require the service of an actuary, *e.g.*, Annuity or Reversionary Interest Societies, which purchase on terms fixed by actuarial calculations the interests of remainder men and reversions under wills. The great benefit societies, like the Hearts of Oak, the Oddfellows, the Foresters, and in fact all the Friendly Societies of any magnitude, all require an actuary for the safe conduct of their business; and some of the wealthy trades unions which undertake benefits are well advised in attaching to their staff a qualified actuary. These positions are all well paid, and the actuary is in his own sphere an autocrat; no person can gainsay his conclusions, for no one so well knows the intricate problems with which he has to deal, or the method

of their solution. His work is in the highest degree technical, almost bloodless in its lack of interest, though the results may be of very human importance to the person whose case he is considering.

The first step to be taken is to obtain a position as clerk in the office of an Assurance Company or Society, if possible in the Actuary's department; but some such position is an absolute necessity, as the information to be got from study alone is not sufficient. A few actuaries practise as consultants, and take pupils; but this would involve a premium, while the clerk in the company's office (who may be subjected to an educational test) has a salary, even if it be small, from the outset. It is better to have a lad's name put on the books of more than one company, so that he may take the first opportunity of getting into harness.

The interests of the profession are guarded by the Institute of Actuaries, founded in 1848, and granted a Royal Charter of Incorporation in 1884. Its offices are at Staple Inn Hall, Holborn, London, W.C. It puts those who wish to become Fellows of the Institute through the Student and Associate stages, no person under sixteen being eligible as a Student; under twenty-one as an Associate. Before becoming a student, a candidate has to pass (or give reasons for his being exempted from) an examination in Dictation, English Composition, Arithmetic, and Elementary Algebra; which test every lad of sixteen should be able to successfully accomplish. Then he becomes a Student, and finds that two examinations face him before he can join the ranks of the Associates. These examinations are held in April of each year, and in practice it will be found that the study necessary will involve at least one year between each examination. Graduates in mathematical honours of any University in the United Kingdom are exempt from Part I., which is as follows:—

1. Arithmetic and Algebra, including the Theory and Practice of Logarithms, and the Elements of the Theory of Probabilities.
2. Euclid—Books I., II., and III.

3. The Elements of the Theory of Compound Interest, including Annuities-Certain.
4. The Principles of Book-keeping.
5. Practical Examples in all the foregoing subjects.

This will be seen to be the first step in the series of technical questions with which the actuary becomes familiar in his daily work. When Part I. has been successfully passed, preparation begins for Part II., which is as follows:—

1. The Theory of Compound Interest, including Annuities-Certain.
  2. The Application of the Theory of Probabilities to Life Contingencies.
  3. The Theory of Life Contingencies, including Annuities and Assurances on Lives and Survivorships.
  4. The methods of Construction (excluding graduation) and the use of Mortality Tables.
  5. The methods of construction, and the use of monetary and other Tables relating to Life Contingencies.
  6. The Elements of the Law relating to Life Assurance Policies and their Assignment.
  7. The Investments of Life Assurance Companies other than Life Interests and Reversions.
  8. Practical Examples in all the foregoing subjects.
- N.B.*—Questions will not be set involving combinations of more than three lives or the application of the Differential and Integral Calculus, or of the Calculus of Finite Differences.

Success in Part II. entitles the candidate to admission to the Class of Associates, provided that he is of the proper age. Become an Associate, he finds that the Institute, in its wisdom, will not permit him to enter for the third part of their Syllabus, which is in two sections, until at least twelve months after he has passed Part II. Probably he will find that twelve months is not sufficient to give him hope of success, and as he can take either or both of the sections in one year, he will be satisfied if he can do one successfully, and take up the other section in a subsequent

year. The actuarial genius may be able to take up both sections at once, but for most candidates one section at a time is sufficient. The course thus is of four years' duration, and the candidate will have to work hard, as the following Syllabus will show:—


PART III. SECTION A.

1. The Elements of the Law of Real and Personal Property, and of the Law relating to Life Assurance Contracts, and to Joint-Stock Companies, and Friendly Societies.
2. The Principles of Banking and Finance, including a knowledge of the Constitution and Operations of the Bank of England, and of the National and Local Debts of the United Kingdom.
3. Elements of the Calculus of Finite Differences, including Interpolation and Summation, with its application to Life Contingencies.
4. The methods of constructing and graduating Mortality Tables, Sickness Tables, and other Tables relating to Life Contingencies, with special reference to existing well-known Tables.
5. Practical Examples in all the foregoing subjects.

PART III. SECTION B.

1. The methods of Valuation of the Liabilities and Assets of Life Assurance Companies and analagous Institutions, and of dealing with the results shown by such valuations.
2. Investments generally, including Life Interests and Reversions.
3. Miscellaneous subjects connected with the foregoing, such as the practical valuation of Life Interests and Reversions, the preparations of Statements, Accounts, Reports, etc.
4. Subjects in Life Contingencies not included in Part II.
5. The Application of the Differential and Integral Calculus to Life Contingencies.
6. Practical Examples in all the foregoing subjects.

When the actuary has passed his examinations, and become entitled to style himself a Fellow of the Institute, he does not perforce become actuary to a company. He has only taken the necessary steps to entitle him to that post when a vacancy occurs, and meanwhile he has to progress, slowly, if surely, through the ranks of the actuarial staff, doing the work for which he has become fitted. Advance depends entirely on the way in which he shows himself worthy, and no Institute can help the actuary more than he can help himself. A University education will give the actuary advantage in other respects which will aid in his advance. It is not a profession for a high-spirited boy; it demands close attention and a grasp of mathematics, applied to commerce, which cannot be deemed enlivening. However, the posts of actuary to the great assurance companies and like bodies are well paid: often the actuary becomes the manager, as he is well fitted for the position; the services are frequently recognised by a pension or a retiring allowance, and many of the smaller benefit societies entrust their work to an actuary retired from active work in the employment of a company. Even whilst actively employed, actuaries are often allowed to give advice to these societies, and so a pleasant addition can be made to one's salary. The profession may be small in scope, but the proportion of highly paid positions is large; and the openings in the Government service, if not many, are highly paid and carry, of course, the prospect of pensions.





## Insurance

**T**HE insurance risks of the world are dealt with by English offices, and as a consequence there is a wide field open to the youth who has a distinct taste for a commercial career and mathematics. There are scores of great companies with head offices in London, Liverpool, Glasgow, etc., and branch establishments in all large towns, whilst many have offices in the continental capitals and in the chief cities of America, Australia, India and Africa. Many well-paid positions exist in the assurance world, and some of the offices combine two or more of the several kinds of insurance—Life, Fire, Accident, Marine, Employers' Liability, Contingencies, etc. Insurance work is responsible, continuous and exacting, but it is well paid, and the able, industrious youth will find that his energies will be well rewarded. As in the case of banks, clerks may be sent on promotion from one office to another, whilst he who is fortunate enough to start in the head office and to attract the attention of the managers may remain there, rising gradually from minor posts to become assistant manager and eventually manager. It is a democratic world, when ability is readily recognised; a good appearance and address, intelligence and smartness are valuable assets, and the better the previous education, the more likely is a youth to make progress.

To obtain a place in an insurance office a recommendation from one of the directors or local managers is needed, and the candidate is seen by the manager, who will make inquiry as to his suitability, his previous education, his mental alertness, etc. The possessor of a certificate of commercial

education is saved much trouble and questioning, and it is well to be able to produce some indication, such as the passing of the University Local Examinations, of the nature, extent and value of the education he has received. Hand-writing is an essential, and the knowledge of book-keeping and commercial arithmetic should be thoroughly sound, not perfunctory. The introduction or recommendation should be of the best and most influential nature, and should include some personal knowledge of the applicant. In the case of those who have no qualifying examination or certificate to refer to, an examination has to be gone through in the office, the subjects being those above mentioned.

If everything be satisfactory, the boy is engaged, is put under an apprenticeship or probation of four or five years, and receives a small salary during that time, perhaps £100 to £150 for the period of probation. This will not serve to support him, if he has to leave home, so that parents living away from large centres must include the cost of living for four or five years in their calculations. When this is finished, a salary is given, varying from £50 to £80, according to the opinion formed of the boy's usefulness during his term, and the extent of his knowledge of business affairs. He will have been put to varying classes of work, and will have developed some preference: thus, if keenly interested in mathematics and its application to insurance (especially Life), he will do well to become an actuary, details of which profession are given in the chapter under that head. Should he have a good grounding in modern languages, he will do well to go on with his studies, as the correspondence with other countries is considerable, and opportunities of advancement will thus occur. Again, his knowledge may serve him in good stead later on: when vacancies occur in the offices abroad, the clerk in the head office who is not only competent in his insurance work, but has a knowledge of French, German, Spanish, etc., will naturally have an excellent claim to the posts in these countries, which are more highly paid than those at home, and carrying greater responsibility will bring the occupants into notice of the directors for still further promotion.

The best advice to be given to the lad who goes into an insurance office is to become thoroughly acquainted with every detail of the business which he is working at, and whilst mastering his special department, to see the general system on which the varying branches are carried on. Insurance work necessitates a perfect system in order to obtain the maximum of effect with the minimum of expense; and the lad who sets himself to grasp the processes whereby this is attained will have a valuable insight into the managerial mind, and the necessities of organization.

After the chrysalis period, the insurance clerk will find his salary rising, slowly if surely, and even if no good fortune befall him, he can see that industry and integrity will bring him a competency, if no more. He can earn something by introducing business to his office, and should he prove successful in this and have a large and wealthy connection of friends and relatives, he may become an inspector of agents, with a salary of at least £200, commission on the business he brings in, and an overriding commission on that of the agents in his district, whom it will be his duty to keep working for his company's benefit. The prospects of the Actuary are dealt with under that head. In Marine Insurance, an underwriter, with a salary of £2,000 a year, will have several assistants receiving from £500 to £900 a year; the general managers of the great offices are rewarded with salaries varying from £1,000 to £4,000 a year, and the heads of special departments are well paid, *e.g.*, Fire, Life, Foreign, etc. Most companies have a pension fund for the staff, to which a contribution is made out of the profits every year, and this is becoming more and more general, so that it is safe to say that the insurance clerk of to-day is sure of securing a pension or superannuation allowance from his office. All through his life he is in the position of adding to his income by commissions or business introduced, and every insurance man makes it a point at least to obtain their own life insurances free by obtaining business, the commission on which will work out to that extent.

The hours of business are practically those of a bank, and extra pressure will come at the quarter days and the end of

the financial year. Holidays vary in proportion to the length of service, and many companies are very generous in the matter of sickness, keeping open a sick clerk's place for months and paying salary as if he were at work.

The Insurance Institute is doing good work by educating its members in the details of their occupation, but it is concerned only with those already in offices, and does not afford a means of getting a youth into an office. The insurance profession is growing, and those who have perseverance and ability need not despair of obtaining their due reward.

## The Stock Exchange

**M**ANY parents will at once reject the idea of placing their sons in the supposedly injurious atmosphere of the Stock Exchange; and the axiom that a member of that body is liable to certain damnation is still cherished in some quarters. In recent years the Stock Exchange and its doings have been so much discussed and made public that the minority is indeed a small one which does not know that honesty and commercial straightforwardness do obtain even there. As a matter of fact, the relations of the members one to another are based upon mutual confidence, seldom or ever misplaced; and there is in addition a large mass of business done which involves the stockbroker far less than his client, in a charge of unfair dealing. If gambling be the foundation of all Stock Exchange transactions, the same can be said of many affairs in which people will engage with perfect confidence and assurance of impeccability; and the lady who buys an annuity gambles with her life as much as the stockbroker, who deals in American rails or Turkish bonds, does with his money.

The Stock Exchange is a close borough, to which examinations do not admit, and in entering which many difficulties have to be overcome. There are some 4,000 members, and about 2,500 authorised clerks, a class which will be dealt with later. New members, from March of this year onward, pay a yearly subscription of forty guineas (hitherto it has been thirty guineas); those who entered before 1899 will continue to pay at the old rate. They are bound by the stringent rules and regulations which the committee has from time to time passed. They are subject to the com-

mittee's control, and any case of bad faith or unjust dealing will be promptly punished when the committee, having investigated the facts, find it to be well founded. Suspension for a term, varying according to the gravity of the matter, or in bad cases expulsion, awaits the luckless offender, who will not get much sympathy from his fellows, such action as his tending to discredit the calling in the eyes of the public.

The number of members and clerks continues to increase yearly, although occasionally in bad years the word goes round that So-and-So find it not worth their while to keep up their membership, so bad has business been. This loss is more than made up by the incoming of those who hope to make fortunes, or who, having given up the army or some other profession, turn to the Stock Exchange in the hope of turning their capital, small or large, to some advantage. The members of the Stock Exchange may be divided into two classes—those who act for the investing or speculating public, and those who do business on their own account. The former is the larger moiety of the number, and each firm, in virtue of their correspondence with clients, of the book-keeping necessary for the many accounts, and the necessary dealings with other firms, employs a large number of clerks. Those who do business on their own account, the "dealers," or "jobbers," as they are termed, require a smaller staff, and in some cases can make shift with one or two good men. The neophyte is of but little use to a "jobber," and most men begin with the training received in a broker's office.

The process of selection is difficult, and advice should be sought from a solicitor or bank manager, if no previous dealings have existed with a stockbroker. Unquestionably the Stock Exchange has many alluring features; the prospects of wealth which it affords, and the many examples of men who have become rich whilst engaged in business therein, go far to make a lad who can get into a broker's office rejoice over his schoolmates who may be destined for a securely progressive monotony for the Civil Service, or for the anxious life of a professional man. There are anxieties,

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great and never ending, for the stockbroker, but there is a spice of excitement; the possibilities are enormous, and every day almost brings them before his eyes, so that its attractions will be found very great. Most firms will not take a lad into their office without a premium, varying from £50 to £500; and independently of this, a lad whose family connections are wealthy and likely to bring business to his employer, will not unnaturally be welcomed with more cordiality than is accorded to the son of a poor man. Not that success will be more assured for him; indeed, there are men now making a large income by Stock Exchange business who entered, not as premiumed clerks, but as office-boys, and whose initial duties were stamping letters and acting as messengers. On the Stock Exchange, chance seems to reign supreme, and more than one wealthy broker has come to grief and lost not only the capital invested in his business, but all his private means, which, had he been ambitionless, would have maintained him in a decent competency.

The age at which a lad will be taken is from seventeen onwards; and from the first he finds himself apprentice to a process of wit-sharpening which never ends. He will go through the various duties of writing letters, keeping the books, collecting cheques on "pay-day," calling with transfers at companies' offices, looking after the necessary certificates and forwarding them to the clients who own them. At this work he may spend three or four years, receiving perhaps a small salary from the first, or not earning anything for a twelvemonth; the circumstances vary with each case, and the lad for whom a high premium is paid does not necessarily begin to be an earner any the sooner on that account. The clerk or partner who controls the office work will soon learn his value, and his salary will depend entirely upon himself, unless, of course, definite arrangements have been made when he begins the work. Many offices contain men who do no clerical work, but are able to introduce business from friends, sharing with the broker the commission on the transactions; but these cases do not apply to the case of the lad who is working his way regularly

through. After some experience of office and outside work the clerk may be admitted to the Exchange, if he be seventeen years of age, and after he has been two years there, if he be then twenty years of age, he may be selected by his employer to act as "authorised" clerk in "The House" (as the Exchange building is called in London). The authorisation is a power to transact business in his principal's name. This post is given only to a man who is intimately acquainted with the markets, the prices, and descriptions of stocks, shares, and with the customers for whom the broker acts. His duty will be to go into the House, buy and sell on behalf of his employer (who, not the client, is responsible to the "jobber" for the fulfilment of his engagements); in fact, he will be entrusted with a heavy responsibility, and therefore will be chosen on account of his qualifications. The good office clerk is not of necessity likely to make a good "authorised clerk"; but occasionally arrangements are made, when a lad is taken into an office, that he shall be put into "The House" when suitable. The advantage of being an authorised clerk is that membership of the Stock Exchange is granted on terms less onerous than those demanded from outsiders. To join the Exchange, the committee require that an applicant shall have a good character, be financially sound (on which point his sureties are questioned), and that three members of the Exchange, of not less than four years' standing, shall give security to the amount each of £500, that if he fail to meet his engagements within four years, they shall be liable to his creditors for the amount of their guarantee. Recommenders of an applicant are asked if they would take his cheque for £3,000 in the ordinary way of business, and if they consider that he may be safely dealt with in securities for the account. These conditions demand the possession of much ready cash and influence; so that the parents of a lad will be glad to find that in the case of an authorised clerk, who wishes to join the Stock Exchange on his own account, the guarantee asked for in his case is only that two recommenders shall be required to give a similar guarantee to the extent of £300 each. An additional reason for putting a lad through the routine of an office and




then as clerk, afterwards as authorised clerk in "The House" is, that he is far better qualified to start on his own account, knowing the methods of the Stock Exchange and the conduct of an office: whereas the broker who is put on "The House" by wealthy friends has no experience in either direction, and has to rely entirely on others for his information. Authorised clerks are not allowed to become candidates for membership of the Stock Exchange unless they have been engaged in that capacity for at least four years. If a man becomes a member of the Exchange, he may continue to act as authorised clerk to his principal or firm, and does not lose his then position by becoming a member. It is entirely his own affair when he takes up business on his own account. Occasionally authorised clerks may (through retirement or failure) pass from one firm's employ to that of another; but the four years' service is not required to be continuous with one firm. A member employed as clerk, either authorised or not, may not make any bargain in his own name.

No general rules can be laid down as to the salary of an authorised clerk; £200 may be taken as a minimum, and in the case of elderly men, who lack either the necessary capital or the equally necessary speculative instinct to go on the Exchange themselves, but who are valued servants of a firm in a large way of business, £500 or £600 would be paid, ending perhaps in a partnership.

Once a member, the stockbroker must be left to his own energies and resources; he has numberless fields in which to exercise them and employ his capital. He may become a jobber or dealer, ready to buy and sell at a price which will leave him a profit, though events sometimes occur which upset his calculations; he may develop as a broker a profitable connection, acting for clients in the buying and selling of their investments and in their speculative concerns, charging a commission which varies from 2s. 6d. to 10s. per £100 dealt in on the business passing through his hands; but he cannot act both as broker and dealer, nor do the committee allow partnership between brokers and dealers. If wealthy, he may take the part of a speculator, and deal largely in stocks on his own account; he may confine his

energies to acting as dealer in one particular class of business—Consols, American Rails, Foreign Bonds, Home Rails, Industrials, South African Mines ("The Kaffir Circus"), or those of Australia, in any of which markets he may decide to act as broker for clients, though a broker is usually called on to do business in any market in which his clients are interested. Many men combine a broker's business with an occasional "flutter" on their own account. As between each other, responsibility for business done is confined to members of the Exchange, who frequently suffer heavy losses through defaulting clients. The bargains into which the brokers enter on their clients' behalf with the jobber have to be carried out, whether the client pays or not.

Thus it will be seen that no estimate can be made of the future: all must depend on the individual, the capital he has at his disposal, the market in which he does business, etc. It is safe to say that a man with a large circle of friends who engage in Stock Exchange speculation will not become a jobber; nor will the friendless one start as a broker, for advertising is not permitted, and any stockbroker who advertises is not subject to the Stock Exchange rules and regulations. On the question of the temptations which the Stock Exchange affords, it can be said that the member has plenty of warnings in the men who are broken by losses; and it is distinctly an advantage that a squaring-up of accounts takes place very frequently. At irregular intervals, varying from twelve to nineteen days, all bargains are completed, a price made up as a standard for settlement, and losses and gains in the form of the difference between the price at which business was done and the making-up price, are paid. Shares or stock bought for investment are taken up, and the necessary deeds of transfer prepared for signature by the parties concerned; and in the event of a buyer or seller not being able or willing then to carry out the bargain, a rate is fixed for the continuation of such bargain to the next settlement. Three days are taken up by the settlement; first the prices and continuation rates are "made up"; second, the names are passed from buyer to seller for the transfer of stock; and, third, cheques are drawn for differ-



ences and purchases. The junior as well as the principal will be fully occupied during those three days, work often being continued until midnight, and outside help being requisitioned.

Holidays are granted to clerks in stockbrokers' offices, as in most other commercial houses, although circumstances have conspired to make August and September the dullest months, during which holidays can best be taken. In addition there are the usual Bank Holidays, and some seven special Stock Exchange holidays, *e.g.* January 1st, Easter Monday, May 1st, Whit-Monday, first Monday in August, November 1st, December 26th, with an occasional Saturday in the summer. On these days "The House" is not opened. Should any of the days named fall upon a Sunday "The House" is closed on the day following. Many firms, the principals of which are of the Jewish faith, do not work on Saturday. The hours of business in Stock Exchange are from 11 to 3; on Saturdays, 11 to 1. But much business is done after hours in "The Street," especially in the American Rails and Mining Markets. New York opening prices, owing to the difference in time, are received here about three o'clock, and when "The House" closes the New York market has but just got into its stride.

In considering the Stock Exchange, London only has been dealt with, but there are provincial Exchanges in all the big cities, the management and details of which correspond with the London Exchange: and a lad can obtain a position on these Exchanges even more quickly than in London. The Stock Exchange may have its pitfalls, and success may depend largely on chance; but success *can* be secured by honest business methods, and when it does rain, it pours. The successful stockbroker is a synonym for wealth.

## Journalism

**J**OURNALISM is a profession into which one can enter at any age and under many forms. The boy of fourteen who is learning shorthand and reporting in a small provincial newspaper office will find himself at twenty-five or thirty competing with university men who have decided to take up journalism, and with the men who, having failed for years to find their true metier, have decided to try that which should have been their first effort. Solicitors, barristers, doctors, civil servants, commercial men, army men, all these ranks of life are represented in journalism, and not merely in the limited sense of "a man writing of what he knows." The editor of a newspaper may be but one remove from a university don, from a propagandist lecturer, or from an advertisement agent; but each one has in some degree the quality of suiting the taste of the public, or that section of it to which he intends to appeal. Most journalists are so because they like the work, and the doing it: their character and their tastes are suited to it. The prizes are valuable: many journalists look to Parliament as a logical end to their work; others seek great political power, without the responsibility of public appearance; others regard the commercial side, and give up actual writing to supervise and direct the large undertakings into which groups of papers are now conjoined; yet others desire to raise the standard of literary taste. All are well paid; but the work is personal. There are no pensions in journalism, as there are no excuses. Illness means stoppage of income. In many cases health breaks down under continual strain of work, with insufficient remuneration. A false step taken with perfect good faith

by a man in a responsible position may destroy a promising career. There are plenty of disappointments; yet despite all these drawbacks, there are more journalists than the enormous and ever-increasing number of papers would justify.


The profession of journalism is viewed naturally in two aspects: the outside contributor, and the inside staff-worker. The former is the title given to that large class of men and women who, by natural tendency or special information, are qualified to write on matters of interest to the public. They are free lances, offer their wares in the most suitable quarters, and occasionally join the editorial staff by invitation. More frequently they become important adjuncts of a paper, in that the editor gives them to understand that he relies on them to supply him with topical articles, stories, etc., or he writes to them to ask for an article on some special subject. Journalists of this kind are born, not made. They may occupy a clerk's stool, or sit in a barrister's chambers, or drill soldiers; they write because they know, and many of them are in the happy position of using their journalism as a help to private means, a pleasant addition to an income from other sources, or as an entire support. They go to no office daily; they are at no man's beck and call; they are essential to every newspaper, because they are able to do what the staff could not undertake; they keep magazines and papers interesting and varied.

To those not so fortunately placed by position or ability, the journalistic field has more than one entrance. All-round experience can best be gained if a boy, who knows shorthand, is fairly well educated, healthy, quick, and alert, gets a place as reporter on a provincial paper at a small salary. He learns how to condense his work so that a few lines may indicate the tenor of a speech, or the outcome of a lengthy, heated discussion. He gets to know the things which the public wish to read; he sees what "suited a public" means; he is all the better equipped if he learns the various sizes and styles of type used in paper work, and the method of effectively disposing the various articles and news on a page. In these days of illustrated journalism a knowledge of how to make the illustrated page look well is invaluable;

and the methods of reproduction of drawings, their relative cost, and the resulting effect, should at least be not strange to him, if he does not know the actual work as a craftsman would. The reporter becomes the paragraph writer. The chief reporter disposes of his staff to the best advantage; the sub-editor gathers up all the threads, and keeps on ever correcting and correlating what is placed before him: the editor writes leaders, and is ever on the alert to watch new sources of interest, to select new serial stories, to indicate policy, sometimes to do nothing but select the most suitable lieutenants and to keep them up to their work. The Parliamentary reporter has the faculty of selecting the people to whom a few lines are allotted, and those who must appear in full: the theatrical critic, the musical critic, the artistic critic, all are experts, and in the two former cases may have shown special aptitude for this work. The art critic is seldom an evolution of the species journalist. One man may make a special study his own, and use it to great effect: the statistician, the railway expert, the agricultural expert, the social expert, the sporting expert, the financial expert (otherwise "the City Editor"), and the ecclesiastical expert; the latter is a new growth, but it is the function of journalism and the journalist to be adapted to everything that comes into the public notice.

The progress of the junior reporter through all this experience to the editorial chair depends entirely on his ability, his perseverance, and his capacity of impressing others. The retiring, bashful boy is, unless specially gifted, unsuited for the rough and tumble life of such a career. "Cheek" will often succeed where genuine talent has failed, and in journalism "to the victor belong the spoils."

But if the means of the parent permit, the lad who shows a tendency for writing should be given the best possible education. An Oxford man who wanted to write before he went there, and who has retained his ambition, has so much more chance of success that it is essential for parents to recognise the fact. The unlucky wight who cannot afford it may have to remain a chronicler of small beer and parish meetings: yet, if he were sent to Oxford, or at least to some



place where he can study for a University degree, he might be able to use his talent to advantage. If this expense be too great, but some capital is available, then the best plan is to place the lad, say at eighteen years of age, in the editorial office of a good daily or weekly paper, for which in most cases a premium has to be paid. No salary is given for a year or two, but the practical experience is invaluable. In no case should the specious representations of men who are not actual working journalists be listened to. They cannot give value for the fees they ask to the same extent as the expenditure of a similar sum in a premium. Once well started in a good office, the journalist must be left to himself. Indeed, the nature of the profession is such that it is advisable to tell a boy that after three or four years, or even less, he must not look to his parents for support; they expect him to carve out his way. Urged by this, and by the constant occurrence of successful men who have had to work their way from sweeping an office or setting type, he will make an effort to succeed; and in journalism honest, sterling work will tell sooner or later. The editorial apprentice or sub-editor will occupy his spare time reading, in becoming acquainted with public affairs, in testing his progress by sending articles to other papers, or (under a pseudonym) to his own editor, whose ideas he can thus gauge.

London is the Mecca of all journalists, and the editorship of a daily or important weekly the great prize which every one hopes to gain. Hard, unceasing work, the keenest intellect, the faculty of gauging the public taste, the experience of men and matters, which travel, reading, and constant association with others bring to the observant man; all these are needed, and also health.

Most papers, daily and weekly, now devote space to reviews of books: and the reviewer is often one of the staff who has shown special knowledge of literature, past and present, or who is himself an author. The journalist aspires to write books because it brings him publicity, and often leads to offers of other work: the novelist is often an outside contributor, as, his name being well known, a signed article by him will be read by the public, no matter what his subject.

By the nature of his profession, the journalist has so much opportunity of developing any inherent abilities, that it is no wonder if he end in a place entirely different from what one might expect. Thus many former journalists are now statesmen, public officials, and managers of exhibitions and such like means of attracting the public; their work has developed their capacities along one line, and they have made it profitable. There are now some 3,000 papers of all kinds in the three kingdoms; the average salary of the editors is, it is safe to say, £300; whilst some of the great London and provincial dailies pay £700 to £1,500 a year. The journalists have so increased in numbers, that it is surprising how much of the old glamour that hung over the profession has remained, when almost every household contains a male or female contributor to the Press, or has connected with it some person of the "fourth estate."

It is unnecessary to enter into the rates of pay for casual contribution given by the various papers, or to indulge in a purview of the journalist's life. Like every other profession, it has its drawbacks: the duffer journalist goes to the wall at once; the capable man will make his way to a competency: the genius, if he be rightly directed, will soar to fame; but for the hard-worker, equipped with a good education, and a knowledge of at least one modern language, if not more, a fair share of good sense, and a shrewd appreciation of his work and its meaning, "there is always room at the top."



## The Stage

MANY parents will wonder at the inclusion of the Stage among the serious professions here dealt with; but "the" profession, as one sees it styled, has certainly come to the point of being recognised as a natural outlet for youthful energies. Hitherto the most successful actor was he who "went on the stage," in spite of (if not because of) the awful warnings he received as to his future career. Evil living of every kind was associated with acting; and though we have now two theatrical knights in the persons of Sir Henry Irving and Sir Squire Bancroft, there is still some prejudice against the Stage and its votaries. Largely the old maxim holds true, that the actor acts because he likes to act and wants to do so, not because he is set to it; and therefore little is needed in the direction of encouraging the young idea. Indeed, parents will always have a feeling against giving such encouragement; and they may rest assured that in the future, as in the past, if the impetus be powerful enough, the lad will try his luck on the stage whether they will or no.

But the development of theatres in the United Kingdom has been so great during the past ten or fifteen years that one cannot fail to take it into account; and though the old "stock company" system has not been revived to any great extent, there is a great demand for competent, well-trained actors. Indeed, the modern drama is so largely concerned with present-day manners, that the number of aristocratic actors drawn from the ranks of the younger sons, and the children of younger sons, is easily accounted for. The old-fashioned actor, who worked his way upward from "thinking part" to

a provincial touring company, finds himself displaced by the Stage-struck cadet of good family, who, after a University education, uses his society influence to get the approval of the manager, ever eager to attract a permanent *clientèle* to his theatre. This young gentleman will walk on with ease in a "society" scene, and will wear his clothes with the confidence of custom. If he be competent, he may progress to a leading position; but he is often satisfied to keep a minor place in a company for the sake of the glamour which even now surrounds the actor.

As a rule, the Stage fever does not affect the very young; a boy is seventeen or eighteen before he decides to leave his desk and risk the chances of life with the touring company, which now, as 100 years ago, is the school of the actor. Nowhere else can he get the experience and the training needed for first-class work; every one of those now prominently in the public eye has served this apprenticeship, and from Sir Henry Irving downward there is a general agreement that this is the only avenue to success. Playing half a dozen parts in a week, playing before ever varying audiences (who, in the provinces, do not go to the theatre to digest their dinners there), and being ever ready to supply the place of those who are unable, from one cause or other, to appear, these are the classes in which the actor pupil graduates. Some there are who gain experience in the scores of excellent amateur dramatic societies to be found in London and the great provincial cities; and such perfection is now expected from amateurs that the Theatre Royal Back Drawing-Room (as it was called) is no longer the synonym for imperfect work. The amateur societies usually engage as acting manager some person professionally experienced in this capacity; leading actors and actresses are engaged to coach the members in their parts, and it is no wonder that from these societies should come forth competent actors who rapidly win their way on the Stage with the aid of the experience thus attained.

There are in England, Ireland, and Scotland, probably some 400 theatres, of which 80 are in London and its suburbs. There is in Stageland, as elsewhere, a tendency towards ag-

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glomeration, and more than one firm of theatrical proprietors will be found owning a dozen or more houses in different parts of the kingdom; whilst other firms will have a score of companies "on the road" playing in "London successes." Thus there is a great field for talent, and it is surprising that no Dramatic School should have been founded, and that the profession is, so far as organization and control are concerned, entirely chaotic. By the nature of things, this leads to some difficulty in the way of having one's talents fairly recognised; but the few genuine teachers (for there are many worthless persons advertising) have their hands full, and their pupils seldom fail to obtain satisfactory engagements. The late Miss Sarah Thorne, one of a family which has been connected with the English Stage for generations, had a stock company at Margate, which has been remarkably successful in turning out good actors, and which will probably be continued; and Mrs. John Billington (formerly of the Lyceum), Mr. Richard Temple, and others are well-known and successful teachers.

To speak in generalities of Stage salaries is impossible; the beginner in a touring company is often lucky to get £1 a week, travelling expenses, and a ten weeks' engagement; the best men in London, who are not themselves managers, will receive from £10 to £40 a week, in some cases with long engagements. These sums may seem large, but there is to be considered the period of waiting between two engagements. Rehearsals prior to production are not always paid for, and there is always the risk that "the run of the piece," for which engagements are often made, may be a week or two, instead of the expected three hundred nights.

Travelling is no easy part of the actor's life; after a heavy Saturday, with perhaps a *matinée* in addition to the evening performance, he rises on Sunday and has frequently to spend half a dozen hours in a train, arriving late that night in lodgings, which have few comforts and many disadvantages. His day will be occupied with rehearsals; there is frequently a mid-week *matinée*, and the life is often trying, unhealthy, and often unpleasant. But the man who is determined to rise, will rise superior to all these discomforts, and keeping

his eye on London as the goal of his ambitions, will work hard and keep straight: the latter point is one on which something may be said. The Stage is, everything considered, no more wicked place than the rest of the world; there, as elsewhere, everything depends on one's self; and if you can resist temptation in business life, in every other profession, the stage has nothing which need be feared. The weak-willed go to the wall and to the dogs in every walk of life; and the tone of the stage has so altered that "the drunken actor" is no longer a true picture.

Health, education, mental and moral strength, determination to succeed: these are the qualities needed by the young actor; and with the heightened standard of education rendered necessary for even the less significant impersonators, there is less and less of the narrow ignorance which makes us laugh at "Trelawny of the Wells," less ignorance on the Stage, less bigotry in the world. Education is having a most satisfactory influence on the stage, and though the paying aristocratic amateur is having his day, ere long matters will have settled down. Access to the Stage will soon be a matter of training (if not, as some say, competitive examination), training by an expert for special work; and an honoured profession will not fall, but rise still higher in the estimation of the public, when it exacts some previous general education in addition to the vague desire "to be an actor."

## Art

**U**NDER this heading we propose to deal with painting, modelling and designing, from the point of view of a parent who wishes to see some assured future for his son in the field of Art. Your boy shows an aptitude for drawing, and the question arises—what is the best thing to do with him? The answer to this question depends almost entirely on his ability. If he happens to be a genius you need not trouble yourself about him; for in whatever circumstances he is placed, however adverse, his art will push itself to the front. But boys of genius are rarer than fond parents imagine, so we will assume that your son is an average boy with a taste for drawing. He himself will wish to become an artist, perhaps, and will have vague notions about some day exhibiting in the Academy. But you are not content with vague notions, and before you allow him to start on his career you wish to be assured that there is a reasonable prospect of his making a living by it.

Now unless a youth has exceptional abilities—a point which the sincere opinion of a professional artist can settle—there are but two openings which afford him an opportunity of turning his artistic talents to money. He may study to become (1) an art master; (2) a manufacturer's draughtsman, designer or art workman.

(1) An art master is one who holds a certificate to teach in an Art School or Class which has been approved by the Department of Science and Art, and which is superintended and managed by a local committee. To obtain this certificate it is necessary to pass certain examinations. Local Art Schools and Classes, the Royal School of Art, South Ken-

sington, S.W., and Training Colleges prepare students for these examinations, which are also open to external candidates. Art schools and classes under the Department are formed mainly for the purpose of promoting instruction in art among the industrial classes; but they are open to others upon payment of fees, which vary according to the locality. In May and June annual examinations are held at these schools under the supervision of the Department. These are personal examinations which must be passed in order to obtain the Art Class Teacher's certificate, this being the necessary step to acquiring the Art Master's certificate. But besides these personal examinations there are examinations of work. These are held at South Kensington. The Department pays the carriage of work sent up to London from Art Schools and Classes under its control. External candidates must send their certificate works (carriage prepaid) direct to the Department of Science and Art, London, S.W., on or before the 1st of April in any year. Every work submitted as a certificate work must be clearly marked with the title and group of the certificate for which it is submitted, and must be accompanied by a filled up supplementary form. The Department supplies these forms.

The Royal School of Art, London, S.W., is established for the purpose of training art masters and for the instruction of students in drawing, painting, modelling and designing, for architecture, manufactures and decoration. Free admission to the course of instruction is granted to students in training, national scholars, and free students. Admission is granted to the general public on payment of fees. Students of Schools of Art who have taken the Art Master's certificate of the first group, and are preparing to become teachers, are eligible to compete for Studentships in Training, with a maintenance allowance at rates of from 12s. 6d. to 43s. 6d. a week for the session of about forty-two weeks each year, and third-class railway fare for one journey to and fro, each session, between the student's home and the Royal School of Art. Applicants for admission must fill up and send in Form No. 488 (to be obtained from the Registrar) before the 15th January or 25th July. Free students are those who

have been on the list of paid students in training or national scholars, and who, if they retire with credit, are allowed to study for an extra year in the school free of charge. National Scholarships are only granted to students of Schools of Art who are engaged in trades which depend upon decorative art. The scale of fees for the admission of the general public is as follows: £5 per term entitles a candidate to admission to the School for five months for both day and evening classes; £1 1s. per term for admission to Special Designing Class on either Mondays or Tuesdays (the fee is £2 2s. for both days); £2 per term of five months for admission every evening except Saturdays. In addition to these fees, an entrance fee of 10s. is chargeable to a student on first joining the day classes or rejoining them after the absence of a year. Students who have passed the 2nd Grade examination in Freehand Drawing, or have obtained corresponding or higher successes in a similar subject at the Art examinations of the Department, may join the school at any time during the session on payment of fees for not less than five months. Students who have not passed an examination in Freehand Drawing are not admitted until they have passed the admission examination. Admission examinations are held weekly at the beginning of each term, and at frequent intervals throughout the year, at the School. The examination fees are 2s. 6d. for day students, 6d. for evening students. A register of the students' attendance is kept, and may be consulted by parents. Students who have paid fees for two consecutive terms in the School and who are preparing to become teachers, manufacturers' draughtsmen, designers, or art workmen, are entitled (a) to attend their class for one year on payment of half the ordinary fees; (b) to a continuance of the same privilege for the next year only; (c) after taking the Art Class Teacher's certificate, to free admission for one year, provided that they pass certain examinations prescribed by the School. All properly qualified students of the National Art Training School are entitled to admission to the South Kensington Museum and Libraries.

Training Colleges have been established under the Department, both in England and Ireland, for the education of

students who intend to become Art Teachers. Examinations are held annually at these Colleges in the same way as at Art Schools.

When the requisite examinations have been passed and certificates obtained for an Art Mastership—there is no limit as to time or age—the Art Master may obtain an appointment as teacher either in some existing Art school or class or one newly formed under the superintendence and management of a local committee, with the approval of the Department. The salary from this, combined with what an Art Master can make from giving private lessons, etc., is sufficient to enable him to live comfortably. And as the nation is gradually becoming permeated with a love of Art, and fresh schools and classes are continually being established, an Art Mastership is a desirable ambition for parents to place before their sons who have talent or taste for Art.

(2) There are many professions open to young men of artistic tastes who do not think it beneath them to turn their talents to the advancement of trade. The application of Art to specific industries is encouraged by the Technical Instruction Acts; and manufacturers are now beginning to realize the importance of design. Too long have they neglected it, for their carelessness in this respect has been one of the main causes of successful competition by foreign nations who have recognised the leading part played by Art in commerce. Art schools and classes under the Department of Science and Art, the Royal School of Art, London, and the Dublin Metropolitan School of Art train students in designing for manufacturers as stated above; but it will be obvious that practical acquaintance with an industry is very necessary before a student can invent designs suitable for it. And it would be well for students to consider in every design he makes the use or purpose to which it could practically be put. The choice of an industry to which the student will devote himself should depend partly on the youth's inclinations and partly on the town in which he lives. Good working designs are always acceptable, and it matters little whether they are for textiles, iron-work, wall-papers or printing. At the same time if the young man is living in



a town with some special industry of its own, such as Nottingham, Stoke-on-Trent or Kidderminster, he would be foolish not to take advantage of the fact by studying to produce good designs for lace, curtains, pottery, or carpets. An appreciation of the possibilities of design as applied to manufacturers seems to be lacking in many parents, who, instead of sending their sons to be trained for art workmen, allow them to join the ranks of those who struggle to earn a precarious livelihood by the art of illustration. It is a fact which cannot be too strongly insisted on, that unless a youth is gifted with abilities far removed from the common order, there is not the slightest chance of his being able to maintain himself by "black and white" work. Very few men succeed in doing so, for talent for this kind of art is of the rarest. The work of the same men recurs again and again in all the illustrated magazines; while there are hundreds of would-be artists besieging every editor's door in vain.

To sum up. If a youth wishes to devote himself to Art, and has only his profession to look to for means of support, he should either be put to an Art School or College and go through the requisite course for an Art Master's certificate, or he should be apprenticed to some manufacture which is closely connected with Art and at the same time attend Art classes, that he may develop his taste for design and learn how to practically apply it. For a youth of exceptional abilities there are other and greater prizes to be won. The Schools of the Royal Academy, Burlington House, are open to all on payment of moderate fees, and there are many prizes granted for excellence in work, such as the much-prized travelling studentships, Landseer prizes, President's prizes, etc. Sculpture and design are taught as well as painting and drawing, so that the youth with ambition in this direction had better seek for admission there. His genius will soon dictate to him the best methods of study and effort, so that detailed advice on this point is not needed. But the risk of failure is proportionately great, and no wise parent would let his son become what is termed in ordinary language an artist, *i.e.*, one who supports himself by paint-

ing pictures or illustrating books and periodicals, unless the boy has high talent, perseverance and alertness, or unless he recognises that to depend on his art for a livelihood is to risk the uncertainty of fortune, which may end in his being a President of the Royal Academy, or in painting, at five shillings each, "masterpieces" for an unscrupulous auctioneer.

into two classes. A youth may study science with a view (1) of teaching it, (2) of applying it.

L. Teachers of science are divided into (a) those who teach in State schools and classes, and (b) those who teach elsewhere.

(a) The following are recognised as qualifications to teach in science schools under the Department of Science and Art:—A first-class in the advanced stage at the May examinations held by the Department; or a class in honours; or a certificate of the Royal College of Science, London, or of the Royal College of Science, Dublin; or a first-class certificate in the advanced stage, or a class in honours at the special examination in Training Colleges. Students are prepared for these examinations at organised science schools: the Royal College of Science, London; the Royal College of Science, Dublin; and Training Colleges. Organised science schools have been established mainly for the scientific instruction of the poorer classes, but they are open to everybody. Students are prepared for the May examinations held by the Department. The following scholarships, etc., are awarded in competition at these examinations: Twelve Royal Exhibitions—four open each year—to the Royal College of Science, London; and nine—three open each year—to the Royal College of Science, Dublin. These are open to all British subjects, and entitle holders to three years' free instruction at the Royal College of Science, London or Dublin, together with an annual maintenance allowance during that period of £50. Sixty-six National Scholarships—twenty-two open each year—tenable at the Royal College of Science, London or Dublin, and entitling holder to free instruction for three years at either, with a maintenance allowance of 30s. a week for the session (of about forty weeks a year), and third-class railway fare for one journey to and fro, each session, between the home of the scholar and London or Dublin. These are only open to persons in receipt of weekly wages, or not more than £500 per annum from all sources, and their children, if not self-supporting; teachers and teacher-pupils in elementary

schools; students in a night class for industrial students. Eighteen free studentships—six open each year—to the Royal College of Science, London. These are open to all British subjects, and entitle the holder to free instruction at the college for three years without any maintenance allowance.

The Royal College of Science, London, is primarily intended for the instruction of teachers, and most of the students are those who have obtained one of the above-mentioned scholarships; but other students are admitted on payment of fees. An Associateship is given to students who pass in all the subjects of the first year, and in the second and third year those of the special division they select. Application for admission to the College must be sent to the Registrar, Royal College of Science, South Kensington, S.W., before the end of May, for admission in the first term in October; or before the end of December, for admission in the second term in February. Some preliminary knowledge of mathematics, mechanics, chemistry, and physics is required to be shown before a student will be entered for the Associateship. A pass in the elementary stage of these subjects at the May examinations held by the Department of Science and Art will suffice. There is no limit as to age. The fees of students entering for the Associateship for the first two years amount to about £75, and for the remainder of the course to about £30 or £40. Four Royal Scholarships of £15 each are given to the students who have gained the greatest aggregate of marks in the examinations of the first year; and two scholarships of £25 to those who have gained the greatest aggregate of marks in the examinations of the first two years. There are many other lesser prizes and medals awarded, particulars of which can be obtained from the Registrar.

There are also Training Colleges at various local centres in Great Britain and Ireland which prepare students for examinations held by the Science and Art Department, and qualify them for science teachers.

(b) There are no special qualifications required for those who teach science in colleges, schools and classes not under State supervision. But it is obvious that the best appoint-

ments will go to those who can show the highest qualifications, and qualifications are generally judged by the number of letters that a candidate has after his name. These differ according to the particular branch of science to which a student has devoted himself. But among them is generally to be found the letters B.Sc. or D.Sc. which signify respectively Bachelor and Doctor of Science of the London University. London University is an examining not a teaching body; and as the examinations are practical as well as theoretical, the student for the degree of B.Sc. must do practical work in a laboratory as well as book work. There are many institutions which prepare students for this degree: *e.g.*, King's College, London; University College (Gower Street, W.C.); the Mason College, Birmingham, and the other provincial colleges. The fees and instruction are much the same at each; but it is quite possible for a hard-working youth, even if engaged at other work in the day, to take the B.Sc. degree, London, by night-work study at one of the many Polytechnic laboratories. To give parents an idea of what it will cost them for their son to take his B.Sc. we will select King's College, Strand, London. The course extends at each three years, usually. The fees payable by matriculated students at this College amount to £16 16s. a term until passing the intermediate science examination, and £18 18s. afterwards, together with £4 15s. 6d. for matriculation fees. There are three terms in each year. Before a student can take any of the B.Sc. examinations he must pass the London University Matriculation examination. There are many schools in the country which prepare youths for this; and it is better that students should pass before leaving school, or, at all events, before beginning their scientific preparation in London. Scientific posts as professors, lecturers, demonstrators, and masters, both at the Universities and schools, are numerous, and there is a considerable and ever increasing opening here for clever men. But high degrees being almost a requisite, and the competition keen, a youth must have special abilities to succeed; while, of course, he would be dependent on his parents for a longer time than would be the case if he

were only studying to become a science master in one of the State schools, which would mean, at least, £80 a year as a beginning. On the other hand, the emoluments to be derived from the former posts are more considerable.

II. The term "applied science" means the application of pure science to the processes employed in the arts and manufactures. Almost all of these fall within the range either of physics or of chemistry. Breweries, distilleries, mineral water manufactories, mines, iron and steel works; all these, and many other trades and manufactures, need their chemists, and there is no lack of posts for capable scientific men. There are many colleges and institutions which afford youths the necessary training for this sort of work. The Royal College of Science, Kensington; Mason College, Birmingham; Yorkshire College, Leeds; Owen's College, Manchester; the City of London and Guilds Central Institute, Kensington; and the Finsbury Technical College, E.C., may be enumerated. The course is generally a three years' one, and there is at most no limit as to age, though the average age of students at entry is seventeen or thereabouts. Finsbury Technical College may be selected as an example to give parents an idea as to fees and requisitions, etc. Applicants for admission at this college, who must not be less than fourteen years old, will have to produce a certificate of good conduct, and pass an examination in mathematics and English. The fees for day students is £15 for the session of three terms, and is payable in advance at the beginning of the session in October. These fees include attendance at all the lectures, laboratory, and workshop courses in the department which the student enters, as well as the use of apparatus and materials. Students at the end of their first year's course are not admitted to the advanced course unless they show, not only by their answers in the examinations held at the end of the year, but by the quality of their weekly work as evidenced by lecture note-books, laboratory note-books, etc., that they are able to take advantage of the training. Failing this, they are liable to have their places filled up by new students. Students, after

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satisfactorily completing their course, receive the certificate of the College. Practically the same course of instruction is given to the students at each of the above-mentioned colleges and institutions, which grant, besides, certificates or diplomas. When a student has completed his work at one of these institutions, he may either be sent to Germany to make a special study of some particular manufacture or branch of science, or he may at once look out for a post as assistant chemist, etc., to some firm. Many manufacturing firms employ five or six chemists, some even more. It is well that a student should have some knowledge, however slight, of other branches of science, besides his particular branch. For instance, the chemist will find a knowledge of electricity very useful to him; or if he is a mining chemist, a knowledge of geology. As for languages, the most important one nowadays, for scientific men, is German, especially if he intends to try his hand at original research. In these intellectual hard-working days, the wider a man's range of knowledge is, the more chance he stands of obtaining a good position. And this is particularly so with regard to applied science. In conclusion, it may be said that there are few professions which offer such a speedy and adequate return for the expenses of training as those which apply science to the processes of arts and manufactures. Preference is given to those who have a University degree, and salaries vary very much, from £300 to £1,000 being given according to experience, class of business, and other like commercial considerations. Here also the value of general education, and of a knowledge of business methods, stands one in good stead; and the field grows daily both for the teaching of science and its industrial application.

## Veterinary Surgeons

THE veterinary surgeon, once styled the horse doctor or the cow doctor, has of late taken a much higher place in the public esteem. The increasing care given to the domestic animals and the great development of horse breeding and racing in these kingdoms have contributed to this; but not so much as has the placing of the education of the veterinary surgeon on a higher plane than formerly. The systematic teaching of the medical treatment of horses and the other domestic animals date from 100 years ago; the Royal Veterinary College, Great College Street, Camden Town, N.W., having been founded in 1791, and given a charter of incorporation in 1875. The Royal College of Veterinary Surgeons, which grants the degrees M.R.C.V.S. and F.R.C.V.S., by examination, was founded in 1844. There are two veterinary colleges in Scotland, one in Elinburgh and one in Glasgow, at which students can be prepared for the diplomas of the R.C.V.S.; but though the fees at the London College are higher, and the expense of living is more considerable than in the Scottish cities, the advantages of study in London are many, by virtue of the prizes, scholarships and exhibitions, and also of the extensive and general experience. The course is of four years' duration in any event, and the expense of the profession, though not so great as that of medicine, is yet such as to require a sum of £400 to £500, if the youth has to leave home to live in London. The winter session begins in October, and students are advised to enter the College then. The preliminary examination in general knowledge is held in September and March at the College, and also in Birmingham, Bristol



Leeds, and Liverpool; candidates in the latter place must give thirty days' notice to the Secretary of the College of Preceptors, Bloomsbury Square, W.C., by which institution the examination is conducted. The fee is £1 5s. The student must be not less than sixteen years of age, and so should, if possible, have passed the examination, or one of the many which are accepted as its equivalent, before he begins his studies. There are fifty-two equivalent examinations, but it is stipulated that the whole of the subjects for the preliminary examination must be included in the certificate of other bodies, and they must have been passed in at the same time. The papers set at the Matriculation Examinations can be had by intending competitors from Mr. F. Hodgson, 89, Farringdon Street, E.C., by post, for 7d. each set. The examination, which is identical with that required for the purpose of being registered as a medical student, includes the following subjects: (1) English; (2) Arithmetic; (3) Algebra; (4) Euclid, Books I., II. and III., with deductions; (5) Latin, including Grammar, Translation from known and unknown authors; (6) one of the following: Greek, French, German, Spanish, Italian; and any four of the following optional subjects: (1) any of the subjects under (6) not taken as obligatory; (2) English History; (3) Geography; (4) Inorganic Chemistry; (5) Elementary Mechanics; (6) Sound, Light and Heat; (7) Electricity and Magnetism; (8) Natural History; *i.e.* two of the following subjects: Physiology, Zoology, Botany and Geology. Optional subjects (6) and (7) cannot be taken by a candidate who takes (4).

Having passed his examination, the student is, after producing a character testimonial, entered as a student, and pays £21, being the first instalment of the educational fee of £34, the other instalments being payable at the end of the first, second and third years. This fee covers attendance at all the courses of lectures, and of clinical and practical instruction, necessary to qualify for the diploma of the R.C.V.S. The members of the College staff are prohibited from conducting private classes, and no additional fee is charged for such tutorial instruction as is considered neces-

sary to supplement the regular courses of lectures. For 1898-9 the first winter term began the first week in October, and ran to the second Saturday in December; the second winter term begins the first week in January and runs to the middle of March; the summer session begins the first Monday in May, and runs to the second Saturday in July. Students can remain at the College between the sessions and carry on practical work without additional fee.

Under the regulations of the R.C.V.S., no candidate can obtain the diploma until he has attended four sessions (or years) of not less than thirty weeks each, and passed four examinations: the first, second, third and final examinations; to qualify for which, the student must study the prescribed subjects for one full session. If rejected three times at any one of these, he is no longer considered a pupil; and disqualification for absence at lectures is equivalent to rejection. Students are closely looked after as regards attendance, and are not allowed to absent themselves from examination, when eligible, without permission and writing from the Dean. Students who have passed their third examination have to act as clinical clerks and dressers in rotation. Four centenary prizes of £20 each are given yearly, one to each of the four classes of students; class medals, certificates of merit, and class prizes are awarded to industrious students; a silver and a bronze medal are given yearly by the Royal Agricultural Society of England, and Exhibitions, the particulars of which are given from time to time by notice, are awarded annually. Good conduct and regular attendance are indispensable for prize winners. The Coleman Prize, from funds left by Mr. Edward Coleman, one of the founders, is given for essays on pathological and practical subjects relative to the horse's foot, shoeing, eye diseases and glanders, and only those who are working for their final examination are eligible. A hospital surgeon and two assistants are appointed for a year or longer, to reside in the College, and are chosen from among the scholars, exhibitors, or other distinguished students who are qualified M.R.C.V.S., and are paid, in addition to obtaining invaluable experience.

It will be seen that a preliminary knowledge of such subjects as Chemistry, Botany, Elementary Anatomy and Geology will be of great use to the boy who, urged by a natural liking for animals, and possessing some considerable ability, intends to become a Veterinary Surgeon. The charge so often made against veterinary surgeons as being coarser than their medical brothers is in no way justified by the profession in itself; but whatever force it has is due to the action of the students, who are no more or less inclined to lower their profession in this than in any other career.

When qualified as M.R.C.V.S., the youth will naturally wish to become self-supporting. To this end he either at once proceeds to the Army Veterinary Department, of which more later, or he sets up in practice in his native place, or wherever an opening seems likely. Here he has to take the usual risks of such a step, and to wait till fortune favours him. But the great employers of labour—railways, tramways, omnibus companies, carriers, the great landowners—all have in their employ a regular veterinary staff, varying in number and salary, but each one comfortably off. Again, the corporations of cities and the County Councils have to employ a veterinary officer to supervise their stud, and these officers are well paid, and have the prospect of a retiring allowance. Sometimes, these gentlemen, when employed by one or other of the bodies named above, are obliged to abstain from general practice, and are paid accordingly; in other cases they are not so bound, and can carry on a lucrative private business whilst enjoying a fixed salary from their clients, to whom they will act as consultants. Many trainers of racehorses engage a veterinary surgeon to reside on the spot, and look after their highly sensitive charges; and frequently they have started in this business on their own account, as breeders or trainers of racing stock. A town near a hunting district offers many advantages, and the better educated the veterinary surgeon, the more of the gentleman he is (to use a hackneyed phrase), the more chance has he of making a lucrative position.

The advantages of the Army Veterinary Department are the regular salary, the social position, the increasing income,

and the certainty of a pension on retirement. Since the veterinary officers have been made non-regimental, they have found their social position much more satisfactory, and certainly they have less to complain of than before, when frequent unpleasantness between the combatant and non-combatant ranks was the rule and not the exception. Candidates for the A.V.D. must be not less than 21, or more than 27 years of age, must be M.R.C.V.S., must be unmarried, and, in the opinion of the Commander-in-Chief, be in all respects suitable to hold commissions in the Army. A written application to the Under-Secretary of State, War Office, S.W., must be made, and a personal interview with the Director-General A.V.D. is necessary. A professional examination by a Board of Army veterinary officers must be passed; and likewise a stringent physical examination by a Board of medical officers. The Board will pay particular attention to the correlation of the following table:—

| Age. | Height without shoes. | Weight without clothes: | Chest girth in inches: |
|------|-----------------------|-------------------------|------------------------|
| 21   | 64 inches             | 187 lbs.                | 33½                    |
| 22   | 64    ,,              | 189    ,,               | 34                     |

The eyesight test is searching, and squint, inability to distinguish colour, or any morbid conditions will cause rejection. Hearing, freedom from impediment of speech, good teeth, and general healthy conditions are essential. Loss or decay of teeth is considered a disqualification. The opinion of the Board as to fitness or unfitness is final, so that a lad thinking of becoming a veterinary surgeon, with a view to the Army, will be well advised to obtain the opinion of his medical attendant as to his fitness for these tests.

Prior to the professional examination, a birth certificate or other proof of age, character certificates from a clergyman or other fit person, and from his college principal and professors, must be sent. Examinations are held periodically on the occurrence of vacancies, and commissions are given according to the result. The examination is in two parts, written and practical, and covers all the requirements of the

profession. Successful candidates are appointed to Aldershot to undergo six months' course of special training in (a) practical horse-shoeing, (b) practical saddlery, (c) microscopical work, (d) the diseases of cattle, camels, elephants, sheep and goats, (e) meat inspection. At the end of his six months' probation, an examination on these subjects is held, and the successful candidates receive commissions as Veterinary Lieutenants, the commission being ante-dated to cover the probationary period. Unsuccessful candidates are dispensed with, and have no further claim. The Veterinary Lieutenant receives a salary of £250 a year, quarters, fuel, light, forage, servants, or money allowances in lieu of any or all of these. Within the first ten years' service he must spend at least three years abroad, generally in India, and if then competent, is promoted Veterinary Captain, with pay of 15s. 6d. a day, increasing after five years' service in that rank to 17s. 6d., after ten years to £1, after fifteen years to £1 2s., and after thirty years' total service to £1 4s. a day. Promotion to the rank of Veterinary Major, carrying the same salary, takes place after ten years' service on full pay as Veterinary Captain; and a Veterinary Major must complete fifteen years' service on full pay before he is eligible for promotion to the rank of Veterinary Lieutenant-Colonel, and must have spent three of these in India. The Veterinary Lieutenant-Colonel receives a daily pay of £1 5s., after twenty-five years' total service £1 7s., and after thirty years' total service £1 10s. The Director-General A.V.D. receives £850 a year, and holds office for seven years, when he is retired on £600 a year. Other officers are compulsorily retired at fifty-five years of age; but, in special cases, Veterinary Lieutenant-Colonels are retained up to the age of sixty. Charge pay of 5s. a day extra is paid to the senior officer with an army in the field where there are no less than 5,000 animals attached; to the veterinary officer in a command abroad who is in sole charge of mounted regular troops with 1,500 animals attached; and to the veterinary officers in a home command employed with the Remount and Registration Department. The Inspector-General of Remounts is a

military, not a veterinary officer. Half-pay conditions are identical with those of combatant ranks. Retirement on retired pay is permitted after ten years' service, and after twenty years' service an officer is entitled to retire. In the former case a gratuity of £800 is given; in the latter, pay varying according to rank and service. An officer who on voluntary retirement has served for less than three years in the rank from which he retires, is entitled only to the retired pay of the next lower rank. Officers may be compulsorily retired at the end of ten years' service, or of thirty years' service, or at the age of fifty-five; £800 gratuity being given in the first case, voluntary retired pay in the second, and a higher rate of retired pay in the third. Retirement from unfitness entails, in the case of the unfitness caused by service, retired pay as in the grant of compulsory retirement; when it is not caused by service, pay or gratuity as in the case of voluntary retirement.

It will be seen that the young Army Veterinary Surgeon must be prepared, as soon as he is gazetted to a commission, to spend much of the next ten or fifteen years abroad, usually in India; after that, he will find himself home again, to remain there for the rest of his career, though he may go to India on promotion to higher ranks.

Other forms of employment under Government for veterinary surgeons arise through the precautions taken to exclude disease from these countries. The Board of Agriculture in England, and the Veterinary Department of the Irish Privy Council give temporary employment to veterinary surgeons as inspectors at the various ports. The salary varies, and in many cases the employment, though nominally temporary, ends by becoming a permanency, and the officer is put on the staff, with a right to a pension. In England the regular staff consists of one Chief Veterinary Officer (£800-£1,000), one Assistant ditto (£600-£800), two Veterinary Inspectors (£400-£500), one ditto (£250-£350), two Assistant Inspectors (£200-£300), one Inspector (£150), and three Inspectors (£100). These gentlemen are stationed at London, Liverpool, Glasgow, Bristol, Newcastle, Southampton and Hull.

Appointments are made by the head of the Department, a synonym for influence; but the temporary posts are always becoming vacant, and application should be made to the Board of Agriculture, Parliament Street, S.W., for information. In Ireland the Chief Inspector (who was a temporary officer up to a few years ago), receives £500-£600, and two travelling inspectors £250-£300. These appointments are also obtained by influence; but temporary posts are frequently open, and application should be made to the Chief Clerk, Veterinary Department, Dublin Castle, Dublin.

Officers needed for the Civil Veterinary Department in India are transferred from the list of officers of the Army Veterinary Department serving in India. The veterinary surgeon to the Royal Irish Constabulary receives £200 a year and allowances. Veterinary officers needed for special purposes by the Government are selected from local practitioners in the place of their employment. The Colonial Office has some veterinary appointments in its patronage, for details of which application should be made to the Secretary of State for the Colonies, Downing Street, S.W.

The veterinary surgeon, either in civil life or Government service, needs good health, steadiness of character, and a facility for managing animals and men. Some devote themselves entirely to special work, *e.g.*, dogs which the fashion of the time has made a profitable study; others who are born teachers will obtain a surgical degree and seek employment at the Royal Veterinary College and elsewhere; whilst the fact that the Royal Veterinary College alone has over 200 students annually, shows that the veterinary profession is growing alike in popularity and public esteem.

## Commerce

“GET him into an office.” This is the reply one hears so often if a parent is asked what he thinks of doing with a son. The boy is perhaps fifteen or sixteen years of age, has been fairly studious at school, likes the idea of making a start at money earning without the long apprenticeship of a profession, and already feels himself a “prince of commerce.” Now let us see how he is qualified. His knowledge of book-keeping is probably a theory, like that of the solar system, and equally inapplicable at a moment’s notice; his writing is fair enough, but “goes bad” after a certain amount of usage; he has played with shorthand, but finds it “rather a bore” transcribing what his sister or his chum has read to him; French is—well, he knows enough to read an easy French book, but he cannot speak with any fluency or correctness of accent, he cannot write a letter in French, and he knows none of the French technical and business terms (indeed, he is often ignorant of English technical terms, and has to learn them when he goes to business); with German he has even less acquaintance than with French; while geography (for business purposes) is not an agreeable thing to stick at; and there may be a shakiness about his calculations even in elementary arithmetic. He can work out a sum if given time enough, but he has never practised mental arithmetic, and the metric system of weights, measures, money, etc., is associated with the idea of decimals and with nothing else. With regard to the metric system, the average boy is in the position of the teacher who, with an insularity which is almost unnecessarily patriotic, explained to his pupils that “the French for



horse was *cheval*; that is, the French people called it *cheval*, but it was a horse all the time, whatever they called it." Then if the boy were asked to take down a statement in longhand from dictation, how would he do it? How many mistakes in spelling and grammar would be found? How would the sense appear? Would the handwriting stand the test? Again, let us suppose that the boy is told to acknowledge a letter. Can he do so to the satisfaction of the chief clerk? Is he acquainted with the elements of business correspondence? or does he begin as he began his notes to his fellow scholars?

Now, how can such a lad be expected to do well in an age when the qualities he lacks are to be had by every one and by every one's son? It is not even safe to say that the competitive examination has not touched commercial life. Daily more and more attention is being given to the need for making those English lads, who are destined for commerce, able to compete with the educated bilingual and trilingual Germans who come yearly to London, Liverpool, and Manchester in increasing numbers. The London Chamber of Commerce has arranged a system of examinations in commercial subjects, such as those above mentioned, and the Secretary of the Chamber (Eastcheap, E.C.) will give full information as to the scheme. French, German, shorthand and commercial geography are the points to which attention is given, and book-keeping and business methods are also considered. The examinations are conducted by the College of Preceptors, Bloomsbury Square, W.C. At the time of writing, Birmingham is taking active steps to bring into existence a Commercial University, where such subjects will be taught. This is a notable step, and recognises the great need for making our commercial men better educated, *i.e.*, better fitted to cope with competition from abroad in every direction. Also it is a recognition of the fact that a clerk must come to his place of business, not to learn the rudiments of business (for, indeed, seldom will any one there have the time or the inclination to tell him), but to apply what he already knows. To this end, the possession of a certificate in commercial subjects (*e.g.*, that of the London

Chamber of Commerce), although of course it is no guarantee of obtaining employment, is a very valuable asset when a boy leaves school.

Among the great employers of commercial clerks are the railway, shipping, dock, and canal companies. The articles under the headings Insurance, Banking, and Secretaryships give information as to the special conditions of these branches of commercial life. The Railway Clearing House (Seymour Street, Euston, N.W.) employs a large number of clerks, who are subjected to a competitive examination. A nomination from a director, or one of the chief officials of a railway, is required for entry as a clerk in a railway company, and the boy with a special knowledge of accounts will do well to try and get a place in the audit office. The age for entry is between fourteen and sixteen, and the initial salary is certainly small; indeed, the boy cannot be said to be self-supporting for three or four years. The prospects of advancement depend entirely upon ability and perseverance, and many men now in prominent positions on the railway systems of the United Kingdom have begun as clerks with a salary of ten shillings a week. There are many railways abroad, the capital and control of which are in the hands of English companies (*e.g.*, the railways in the states of South America), and the staff, both clerical and technical, is, in most cases, English. For these a knowledge of Spanish and French is essential, and this knowledge must mean fluency in conversation and correspondence, and a knowledge of railway terms.

Shipping companies take apprentices, who receive during their time a small salary, and if a boy be quick to learn the details of some one branch during his apprenticeship (*e.g.*, charter work, and book-keeping, which is not the ordinary knowledge), he will not fail of employment in another firm when his time is ended.

All the local governing bodies employ clerical staffs, whose circumstances are gradually approximating to those of the Civil Service. The county councils, vestries, school boards, corporations, etc., are arranging their clerks on Civil Service lines, an age of entry being fixed, a competitive examination

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arranged, and a regular scale of salary with yearly increments being enforced. Advertisements of these vacancies appear in the principal daily papers, and in the weekly journals which devote their attention to the affairs of local bodies (e.g., *The Local Government Journal*, *The Municipal Journal and London*, etc.). The London County Council (Spring Gardens, S.W.) and the London School Board (Victoria Embankment, W.C.) are two large employers of clerical workers, and the scheme of the former represents the high-water mark of organization outside the Civil Service. Candidates for the examinations must reside in or near London, be between eighteen and twenty-three years of age, and pass an examination in handwriting, spelling, English composition, shorthand or book-keeping, arithmetic, geography, and compound addition. These are the obligatory subjects, and at least half marks must be obtained. Candidates can then take two, three, or four of the optional subjects: shorthand or book-keeping, algebra, Latin, French, German, drawing, mechanics, and chemistry. Shorthand is obligatory for the clerical staff, book-keeping for the account staff; obviously it is better to take both, one as an optional, the other as an obligatory subject. The first year is on probation, and the clerk is not retained unless a satisfactory report be given by his superior. The salary begins at £80, rises by £5 to £100; the next class rises from £100 to £150 by £10 yearly increments; the next from £150 to £200 by £12 10s. yearly, and the first class from £200 by £15 to £245. Then the clerk may look for promotion to £300 in three years, and there are staff posts to which merit and suitability are the essentials.

But apart from all such clerkships, there remain the great body of mercantile clerks in the large towns and cities; they pass no entrance examination, have no guarantee of employment, are subject, in respect of pay, holidays, and advancement, to the caprice of their employer, and have to keep up a respectable appearance on a comparatively small salary. Their lot is hard enough, but in the main they are men who have not availed themselves of the everyday advantages; they began as the boy begins in the opening part of this article, and they have never troubled to improve. They

have just picked up enough to carry them through their daily work; shorthand, French, etc., were too much trouble. They marry, and lose the chance of using spare time to advantage. Of course there are many exceptions, but these are the men who have worked hard to learn their business, no matter what its nature, and to improve their own position by steadiness of conduct, and by becoming essential to the office in which they are employed. No better advice can be given to a lad entering an office as junior clerk than to tell him the old adage: "Whatever thy hand findeth to do, do it with all thy might."

## Secretaryships

THE growth of commerce and industry in England has largely been identical with the growth of the system of Limited Liability; and with the inevitable tendency to specialisation, which one can see in all branches of life, there has arisen a new profession, that of the Secretary. By this is not meant the private secretary to the Member of Parliament or wealthy gentleman; but the person who fulfils very important duties in the management of the thousands of limited liability companies in England. He is often the guiding head and hand, though he appears to the public in a capacity purely nominal, and his position is recognised most agreeably when his signature is appended to a dividend warrant. In many companies the secretary is the manager also, sometimes in name, more often in fact; for between the periodical meetings of directors the routine work of administration falls to the secretary. He is the person most intimately acquainted with all the details of the company's affairs: one of the directors may look after certain aspects of the business, a second after others; but the Secretary is *au courant* with all. He has to keep the accounts, or to see that they are kept; to supervise and direct the correspondence; to see that the registers of shares and debentures are properly kept; to be acquainted with the demands of the Companies' Acts, and to watch every change that can affect the welfare of his concern. It will be news to many that the Institute of Secretaries, established eight years ago, has now some 1,200 members, is growing every year, and is taking steps to place the profession in such a position that none but

honourable, skilful, tactful men shall practise it. As yet they have not insisted upon examinations for membership, but have been content to accept good evidence that applicants have the full qualifications for membership; but ere long, when a charter is granted to the Institute, such examinations will be carried out, and indeed the scheme is already formulated, ready to be put into practice when the council deem such a step advisable. The address of the Institute of Secretaries is 18, Birch Lane, E.C.

The way to go about placing a lad in a secretary's office must be left to individual choice; but when he has come to be sixteen or seventeen years of age, is of a steady, reliable disposition, industrious, and with a taste for business, then it will be time to look over the advertisement sheets of the *Times*, *Daily Telegraph*, *Standard*, and other papers in which such advertisements appear. Usually a gentlemanly lad, well educated, just leaving school is sought: he is expected to be quick at figures, a good writer, and not afraid of work. Occasionally a premium is asked for, but as a rule a lad is taken without premium, and a small salary given from the beginning, which is gradually increased as the clerk shows himself deserving and able. An advertisement inserted in these papers mentioned will be certain to be seen by those for whom it is intended: and nowadays the tendency to group companies under one roof is so wide-spread, that in some of the City of London buildings will be found fifteen and twenty companies managed by the same clerical staff. Solicitors, accountants, and stockbrokers have connections with companies to such an extent that it is not difficult to be brought in touch with those responsible for their control.


We will suppose a lad of eighteen starting with a salary of £20 or £30 for the first year. His work will be purely clerical, dealing with letters, etc., and gaining office experience and a knowledge of routine. In a couple of years he will be put to accountancy work, or to the share ledgers, which include the registration of transfers, preparation of certificates, etc. As he goes on, his work tends to become confidential, and of the many qualities necessary for a

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secretary one of the most essential is the strictest silence concerning all that comes within his ken. The information is not his, and he must be careful not to speak of it apart from his office. Later, he will be given the work of preparing reports for the directors on the progress of the business, and may be called upon to act as deputy for the secretary at meetings of the Board, when he will take notes of the proceedings for the recording in the minutes, and carry out the directors' instructions. It will be seen that the work demands tact, integrity, industry and a readiness to grasp detail of widely differing character. If he be wise, he will attend the lectures given by the Institute of Secretaries on subjects which come within the work and range of a secretary; and he will endeavour to keep abreast with all legislation affecting his own company and companies in general. When he has made proper progress, he will be eligible for appointment as secretary, to fill a vacancy or on the formation of a new company, and may in due time become the occupier of offices and the employer of a large staff to carry on the work of several undertakings.


It will be seen that primarily the secretary's work is not concerned with the active administration of the business, but the absence of a managing director entails such work upon the secretary, that inevitably the directors come to look to him for information and for initiative in action: so that frequently secretaries become important figures in the commercial world, and their previous training is of use in widening the mind. For this end, a good education is of great value, and a lad who is not content to scrape through his school career, but takes up his studies in earnest, will find his knowledge of languages, of mathematics, and of science stand him in good stead as a secretary.

Dealing with the money side of the matter, we find that a secretary will receive from £200 to £500 a year, in proportion to his experience, his ability and the extent of his responsibility; and many men who are secretaries of railways, docks, large commercial undertakings, both manufacturing and distributing, will receive more than the larger sum named, and will on their retirement be granted a retiring



allowance. The Institute of Secretaries has organized a provident fund for its members.

It must be pointed out that on the formation of many new companies, the names of secretaries appear who are quite unknown to the Institute, and who are selected because they are the employees of the firm in question, or friends of some one connected with the promoters, solicitors, auditors, brokers, or directors. But it is safe to say that the tendency to employ only trained men for secretaryships will grow until the public will come to inquire if the secretary in whose hands so much responsibility is left is thoroughly qualified for the post. Private influence will always avail to push forward quickly a man who has shown himself worthy of promotion; and secretaryships are not to be had for the asking. But the work is agreeable and regular; it is one of the most satisfactory branches of commercial life, and reward will accrue to the man who having once got a position improves it by becoming expert in accountancy (if he does not obtain a regular qualification in that profession, for which see under the head Accountancy), fully acquainted with company law and its requirements, and with modern languages, which are a great assistance to this profession as to almost all others. The status of the profession is improving, and with it the remuneration of the secretary and the recognition of his work as essentially practical and valuable in a field of commerce which every day grows wider.





## Teaching


**L**EGISLATION on the subject of Secondary Education is at the present time before the two Houses of Parliament, and whatever be its fate, it is certain that the control at present exercised by the Education Department over the teaching body in this country will be not diminished but increased. Outside the well-known public schools, practically all the educational establishments will be influenced by the Government regulations; although there will always be found a certain number of schools carried on for private gain, and not affected by legislation; and the teaching profession will unquestionably gain in various ways through the gradual improvement in the standard.

With regard to the public schools, the possession of a University degree is an essential preliminary to employment (and this the degree not of an examining University, but of a teaching University, *e.g.*, Oxford, Cambridge, Dublin, Edinburgh, etc.). Then comes the question of specialism: a science master must have a science degree, with high honours in his special branch; a mathematical master must be able to point to a good place in the wranglers' lists; and a classical man is expected to possess proof of his ability by a high rank in his graduation. Over and above these essential qualifications are some others: (a) the faculty of imparting knowledge; (b) the possession of an organizing, controlling, tactful temperament; (c) thorough sympathy with boys, extending into practical participation in the games which form so large and so valuable a part of school life. The public school masters are chosen by the headmaster or by the

governing body from those distinguished University men whom they find to possess those qualifications, and it is not advisable to say that one can enter for the teaching profession with the hope of finding a place on a public school staff, unless one has great and readily applied talent and some influence in high places, and a desire for teaching. A University degree is the first thing, and this, as is well known, means some £600. The exceptionally brilliant man will be retained by his University as Tutor and Fellow; he may later on be induced to accept a special place in a public school, but he can always command high terms, and is one of the teachers who are born, not made.

The possession of knowledge alone by no means makes the good teacher; the faculty of imparting it is almost equally valuable. To develop this is difficult; to ascertain the degree in which one possesses it there are tests in the Universities of Oxford, Cambridge, Edinburgh, London, Durham, and Victoria; and there is also the College of Preceptors, which conducts examinations in the ability of the candidate to teach. These diplomas are accepted by the Education Department as qualifying their holders to act as recognised certificated teachers, provided that a degree in Arts or Science is also held in addition; the old obligation that a headmaster must be a Clerk in Holy Orders of the Church of England does not now obtain to the same degree as of yore, and need not be considered. This is the more so, as the well-qualified University man can, if he so desire, easily take Holy Orders when needed. The teaching diplomas referred to can be obtained by non-graduates, but as the Education Department will not recognise them alone, the University degree is obviously essential. The position of a recognised teacher is this, that under the Education Department, grants in respect of efficient pupils are given only to those schools whose teachers are recognised by the Department as possessing some one of the necessary qualifications. Success in the Science and Art Department examinations is accepted as evidence of educational ability.

The salaries of masters in the large public schools and grammar schools vary greatly; the science teachers being



the best paid of the assistant masters, followed by the mathematical and classical masters in that relation. £100 to £250 are the outside salaries of these teachers, the head-master being paid according to the size of the school, the number of boys, and so on; whilst both he and some of the principal masters increase their income very materially by taking boys as boarders, receiving from £60 to £100 as fees for boarders. In the smaller private schools, which do not come under Government control, or only to a lesser degree than the elementary and secondary schools, masters are often badly paid, and are indifferently accommodated, although this is by no means so bad as before. £40 to £90 with board are extreme salaries paid in private schools, and though much depends upon the individual's ability and capacity to teach, the uncertainty of tenure and the caprice of principals make this by no means popular. Yet, on the whole, the teaching profession is overcrowded in the lower branches, and there is far greater prospect in the taking a place in the schools which come entirely under the Education Department's influence.


The general advantages of teaching are that it gives an early start in life with pay, earlier than in other professions; that the opportunities are many, that success seldom fails to follow talent, ability and industry, and that the associations of the career are, speaking generally, pleasant and refining.

The elementary school teacher is much more certain of employment than his more ambitious rival; his previous training is less expensive, but the pay is less, and the work is less attractive. The beginning may be made at the lowest rung of the ladder as a probationer in an elementary school (sanctioned by the Education Department) and then as pupil-teacher. Probationers must be not less than thirteen years of age and serve up to the age of sixteen in that capacity. They have to pass an examination in Reading and Recitation, English Grammar and Composition, Arithmetic (up to Interest), Geography and History. Elementary Science is an optional subject. The probationer is only engaged in teaching during half the school hours, and receives a small salary of about £5 to £8 yearly. He will study for the post of pupil-

teacher, for which he must be at least fifteen years old, but in the country schools fourteen years is the minimum, and the engagement is usually for four years, during which a salary is given increasing in amount, so that during the four years £60 may be reckoned upon. An examination is held at the end of each year in which the pupil-teacher has to show a high standard of merit, and a second trial is allowed in each case. Should this result in a failure, the pupil-teacher is no longer recognised by the Department. Health is a great matter to the pupil-teacher and to the probationer; the Education Department's requirements are severe, and intending pupils will do well to satisfy themselves that they are free from the many disqualifying affections.

Those whose parents have been able to keep them at school up to the passing of the Oxford or Cambridge Junior Locals or the College of Preceptors second-class certificate examination, can be admitted as pupil-teachers provided that the term of engagement, which may be for one, two or three years, is such that at its close the lad is at least eighteen years of age. Exceptionally well qualified pupil-teachers may take on admission the examination fixed for the end of the first, second, or third year, and if successful they have their term of engagement correspondingly reduced, provided that at its close they are eighteen years of age. Thus a boy of sixteen who can take the second year's examination with success need only serve two years as pupil-teacher.

The opportunities for making progress from the rank of pupil-teacher are many; for in all large towns there are pupil-teachers' centres, where instruction is given by highly trained masters, so that the pupil teacher is educated to become efficient. The pupil-teacher is allowed to attend the classes there held for half the day, during the two first years of his engagement. Being so closely in touch with the Education Department, he will naturally enter for the Science and Art Examination, the goal of his ambition being the Queen's Scholarship, which admits to the Training Colleges. For the obtaining a Queen's Scholarship, hard work is needed, not alone at the classes at the pupil-teachers' centre, but also at home; so that it is obvious that the pupil-



teacher should select for his work a school which has the advantage of being close to one of these centres. Only two trials are allowed for the Queen's Scholarship Examination, which is the passing out examination for the pupil-teacher. The future career of the teacher depends upon his place in this examination.

Those who do well are qualified to be admitted to one of the many Training Colleges which are all over the country; those who are lower in the lists may decide to take a place as assistant teacher, for which they are now qualified. During the last year of the pupil-teacher's engagement, he should decide on the choice of a Training College course or of taking up work at once; and the position is such, that if at all possible, the Training College should be chosen. The value of such a training is great in the obtaining of employment: and the competition in the lower ranks is so keen that every one will desire to lift himself out of the mass by obtaining this educational asset.

The Residential Training Colleges require a course of two years, the candidate on entering being found of good health, and signing a declaration that he intends to adopt and follow the profession of teacher in a public elementary school, or other sanctioned by the Education Department. A third year's training is allowed to certain students of more than ordinary merit, but the two years' course is sufficient to ensure employment.

The Day Training Colleges are attached to the Universities, and are endowed with scholarships, by which means the student may hope to obtain a degree, which, in addition to his training, assures him of his future. An admission fee is charged to both Residential and Day Training Colleges, but beyond this, which varies from £10 to £20, a student is free of all expense during his training. For those who desire to become teachers in Church of England Schools, Roman Catholic Schools, and schools of the various Nonconformist denominations, there are Training Colleges under the several heads recognised by the Department, in addition to the others which make no religious distinction of any kind.

After the Training College course is finished and the last of the examinations, held as a test of progress during the course, has been passed with greater or less distinction, the teacher seeks employment, and usually has to wait only a little while before obtaining it. Indeed, he may not have to wait at all, but may take a place as assistant master with a salary of at least £80 a year, and every prospect of advance. Experience is very necessary, and the well-trained assistant master will, in a few years, find himself enjoying from £150-£350 a year, whilst the organized science schools and technical schools employ headmasters, who are paid from £250-£600 a year. The Training College student, who has passed the two years' course, receives the coveted "parchment," after eighteen months' work as a certificated teacher: those who have had the three years' training can obtain it after twelve months' work.

It is distinctly to the benefit of teachers who have the opportunity, that they should endeavour to utilise their Training College work to obtain a University degree in Arts or Science, especially that of London. This is an additional passport to highly paid employment; and the Colleges give special facilities to those who are anxious to go forward in this direction. In addition to the Arts or Science degree, there is also the teaching diploma, referred to above, which is another medal on the teacher's breast.

It will thus be seen that the persevering student has every reason to be grateful for the increasing interest taken in education; he may win his way from the humble post of pupil-teacher to the headmastership of a school, with Training College experience and a University degree.

The special advantage of the teaching profession is the spare time which the young teacher has, and which he can turn to good account by preparing himself for the higher and more remunerative positions, whilst he is in receipt of good pay for his work. The teaching diploma, alluded to more than once, is very valuable, in so far as it shows that the holder has been tested in the practical work of teaching. This is a quality which no amount of study can impart; and it is for this reason that the best teacher is

not necessarily the one with the most learning, but he who has the gift of imparting the knowledge he does possess with the utmost success in stimulating his pupils to go on and persevere. The branch of knowledge which is the most paying nowadays is Science in all its applications: Chemistry, Botany, Physiology, Astronomy, Electricity and Magnetism, Natural History, and the Higher Mathematics in their application to scientific problems. Hence the specialist in Science is likely to find employment more readily than the Arts teacher, though the latter really comes lower than the Mathematical teacher. The pressure of trade competition has brought organized Science so prominently to the front that the teaching of Classics and allied subjects is to be found in no elementary or secondary Government-aided school, although, of course, it still flourishes, and happily will continue to flourish, in the public and grammar schools and in the Universities.

The plight of the unqualified teacher is rapidly becoming worse, and ere long it will be difficult to find a teacher who is not in some manner able to prove his ability by the exhibition of a degree, certificate, or diploma. A word may here be said on the subject of sympathy with the pupil: the man who goes through his educational course, and retains that undefinable quality (which makes the boy regard his teacher ever after in a strangely devoted light) has all the greater prospects of success, and may hope to shine as one of the educational leaders of his country. Teaching should be taken up not as an amusement, but as a profession, as serious and as valuable as any other, by virtue of the responsibility which it entails in the moulding of character. Viewed in this light, it is a profession which offers many advantages, and which is by no means overcrowded of the best; of the indifferent, well, it is over full; of the competent, it is not so full when one views the increasing expansion of Government activity.

Under the heads of "Science" and of "Art" will be found details of the course by which these subjects, which, of course, include every possible branch, can be studied, either with a view to teaching, or to original work. Finally

as to the prospects, beyond those already mentioned, there is the fact that most local bodies who employ teachers (*e.g.*, School Boards, Corporations, Technical Education Committees of County Councils, etc.) are recognising that the teacher has as much a right to a pension as any other Government servant, and are arranging superannuation schemes whereby that object may be attained. This is a very important step, and will attract to the teaching profession those whom the absence of such provision had hitherto kept out. Of course there are always opportunities for increasing one's income by private work, by carrying on the "Correspondence Tuition" columns of weekly papers, and by acting as superintendent at examination centres. The positions for teachers in the Army and Navy are neither sufficiently numerous nor well paid to attract the well-qualified teacher, although they have the advantage of being direct Government appointments. Under the heading "Lecturerships and Inspectorships" will be found details of many positions open to teachers in addition to the increasingly well-paid employment afforded by the Government schemes for fostering Education.



## Lecturerships and Inspectorships

WITH the development of local government and education there has arisen a class of appointments for which knowledge of certain special subjects is needed. The Technical Education Boards of the various County Councils, Boroughs, etc., need lecturers in many subjects—agriculture, chemistry, physics, mechanics, engineering, electrical work, etc. For these appointments, which are advertised in the local papers, and in the Local Government journals, considerable distinction in the branch of knowledge referred to is an absolute necessity, as also some experience in teaching; and many University graduates add to their incomes materially by such work. The hours are easy, the work is well paid as a rule, and there are openings for higher appointments, such as Organizing Secretaryships and Inspectors to the Technical Instruction Boards, to the many Polytechnic Institutes, School Boards, and Boards of Education. For particulars as to all these appointments, which vary greatly in pay, nature of work and prospects, application should be made to the Secretary of the Technical Education Board of the district (the offices are usually at the County Council offices), the Clerk or Secretary to the School Board, the Clerk to the Polytechnic Governors, etc. In the direction of science is there most opportunity, and the intending applicant must be well backed up by diplomas or degrees, or some such other indication of his knowledge and general education. The London School Board are now about to appoint certain Inspectors of the Evening Continuation Schools, at a salary of £200 a year; and the proposals for the reform of the Education and Science and Art Depart-


ments foreshadow a similar step there, involving an additional number of officers.

The Lecturerships cannot be set out in any more detail than the above; but the various officials connected with the Boards will give information, and the appointments are advertised in the usual channels of the daily papers, educational journals, etc. They afford excellent opportunities, and are eagerly sought for, on account of the prominence they afford; and in these days publicity is everything in a man's career, for how otherwise can he be known? The various colleges throughout the provinces (*e.g.*, Yorkshire College, Leeds; University College, Liverpool, etc.), all require lecturers whose time is not entirely devoted to such work. A keen look-out must be kept for notice of vacancies; and, as a rule, canvassing is prohibited, so that the appointment depends upon the nature of the qualifications and testimonials, and the impression afforded by the personal interview with the candidate, now a general feature.

The Government Inspectorships are many, well paid, and secure, and the number seems likely to increase. In great part they are obtained by a limited competition among nominated candidates who as a rule have to show either experience or technical knowledge.

The Board of Agriculture (Parliament Street, S.W.) has (beside temporary Inspectors) eight Travelling Inspectors (receiving £300 to £400) and two Superintending Inspectors (£500 to £600). They are nominated by the President of the Board for the position, subject to a qualifying examination. The age is 25 to 35, with an extension to 45 in the case of temporary Travelling Inspectors who have begun to serve under 35. The subjects are writing, spelling, arithmetic, English composition, the Diseases of Animals Act, 1894, and the orders of the Board thereunder. The technical subjects are the most important. The Chief Secretary's office (Ireland) employs, beside temporary Travelling Inspectors, two officers at £250 to £300, who are subject to the same regulations of age and examination.

The President of the English Education Department nominates candidates for the post of Sub-Inspector of Schools



the University graduate being occasionally admitted without examination. Most of the nominated candidates are certified teachers in public elementary schools. The age is 25 to 35, and the subjects are English composition, arithmetic, English history, geography (these are obligatory), and any two of the following:—Latin, Greek, French, German, elementary mathematics, elementary chemistry, elementary physics, theory and practice of education, elementary physiology, and political economy. 158 Sub-Inspectors (2nd class) receive £150 to £300; 53 (1st class), £300 to £500; 83 Inspectors, £400 to £800; there are 9 Chief Inspectors, £900, and 1 senior, £1,100. All the officers receive travelling expenses, and are paid 10s. 6d. an hour extra for examining evening schools; and 98 Inspectors and Sub-Inspectors in charge of districts receive £50 each, additional.

In Scotland the numbers in the several classes are 22, 5, and 15 respectively, and the salaries, examination, age, etc., are the same as for England. There are about seven vacancies annually between the two countries.

In Ireland School Inspectors are chosen not by nomination and qualifying examination, but by limited competition; and there are two grades, Inspector and Inspector's Assistant. The latter is for men between 23 and 39, chosen from the first-class teachers who pass the necessary examination. Both the Inspectors' Assistants (who are 12 in number, receiving £150 to £200) and National School teachers can compete for the post of Inspector of Schools up to the age of 39; the age for other nominated candidates being 23 to 34. The examination is a very severe one, and there are many optional subjects, in addition to a long list of obligatory subjects. 66 District Inspectors receive £250 rising to £500; 6 Head Inspectors, £550 to £600; and one of the two Secretaries (£1,000 and £800) is chosen from the ranks of the Inspectors. Travelling expenses, extra allowances, etc., are practically as in England. The nomination is by the Commissioners of National Education in Ireland, one of whom, the Resident Commissioner, is a permanent official. There are 3 vacancies yearly.

The Home Secretary nominates candidates for the posts of

Assistant Inspector and Inspector of Factories. In the former case the age is 21 to 40, and only those persons are nominated who have had practical acquaintance with factories and workshops. The salary is £100, rising to £150, and as a rule only one or two candidates are nominated for each vacancy. The assistants can compete for the Inspectorships up to the age of 38, the age for other nominated candidates being 21 to 30. As a rule only practical men are now nominated for the few vacancies which occur yearly. The competitive subjects, in addition to a qualifying examination in the usual Civil Service subjects, are theoretical and practical acquaintance with factories and workshops, applied mechanics, the Factory and Workshop Acts, and the History of Factory Legislation. 27 Junior Inspectors receive £200 to £300; 30 2nd class, £300 to £400; 13 1st class, £410 to £500; 6 Superintendent Inspectors, £550 to £700; and the Chief Inspector, £1,200, besides, of course, all travelling and office expenses, etc., necessary in the discharge of their duties. The appointment may be by nomination of a single candidate (who has to qualify) or by limited competition among two or more candidates.

The Home Secretary also nominates for the Assistant Inspectorships of Mines men who within the preceding four years have been employed for two years underground in a mine. Vacancies are not many, and occur irregularly, and the subjects, beside the usual Civil Service obligatory subjects, are theoretical and practical experience with coal mines and mining, and a knowledge of metalliferous mines. The age is 21 to 35. 26 Assistant Inspectors receive £300 to £400; and 13 Inspectors, £600 to £800.

Local Government Board Auditors are nominated in England by the President of the Board, in Ireland by the Lord Lieutenant, and have to qualify in Poor Law and accounts. The former appointments are practically independent of age, and are entirely gained by influence; salaries run from £350 to £800, with clerical allowances, and additional for auditing County Council accounts. The ten Irish auditors receive £400 to £700.

Inspectors under the Science and Art Department are ap-

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pointed by nomination of the President of the Council of Education: 60 2nd class Sub-Inspectors receive £150 to £300; 200 1st class, £300 to £500; 13 Inspectors, £400 to £600; 14 seniors, £600 to £800, with fees for evening work. There are also many occasional Inspectors and Examiners and Acting Inspectors at £3 3s., £2 2s., and £1 1s. per day, appointed as need arises.

The Scottish Fishery Board employs 22 2nd class and 10 1st class fishery officers (salaries, £90 to £190, £200 to £220, with prospects up to £600), who are appointed by limited competition among candidates, who are nominated by the Secretary for Scotland, and pass in practical knowledge of the fishing industry. There are three Fishery Inspectors in Ireland who are nominated by the Lord Lieutenant, and receive £700 a year.

The Inspection of Reformatories in England and Ireland entails, in the former country, 3 Sub-Inspectors (£250 to £400), 3 Assistant Inspectors (£400 to £600), and 1 Inspector General (£800 to £1,000); in Ireland, 1 Inspector (£550 to £600). These are purely nomination appointments by the Home Secretary and the Lord Lieutenant respectively.

The Bankruptcy, Railway, and Shipping Branches of the Board of Trade, the War Office and the Prisons Boards, all have Inspectors on their staff for technical purposes; the appointment being in the hands of the Parliamentary heads of the several departments, who are to be influenced through political and personal channels in favour of men who are competent, not those who have failed elsewhere.

There are various legislative enactments, such as the Shop Hours Act, etc., the administration and inspection of which are in the hands of local bodies, who appoint from candidates answering their advertisement.

It will thus be seen that many valuable appointments as Inspector, which are well worth having, can be had by influence and special knowledge. There are also the various appointments under the local bodies, school boards, etc., which depend solely upon qualification and capacity. In all these branches there is likely to be increase, not decrease; and those who can bring influence to bear upon the several

political personages are well advised to be well qualified for the posts they seek, and not to rely solely upon influence. The tendency every day is more and more towards giving nominations only to competent men, so that a charge of jobbery or nepotism may be avoided. A highly qualified man has always a better chance than he who is only the possessor of a general education, and promotion depends to a great extent upon the same consideration.

## Agriculture

**H**OW far the agricultural depression of the last twenty years is due to a lack of knowledge or to unavoidable causes is a difficult question to answer: but it is quite clear, from the energetic steps taken to promote an accurate scientific knowledge of the subject, that many of the first authorities in England see their way to recovering the industry. The institution of the agricultural colleges at Cirencester and Downton, the increase in the County Council's endowments for technical education, and the application of chemical discoveries to agriculture, have been followed by the striking action of Oxford University, which in affiliating Reading College to the University has given its support to the scientific teaching of agriculture and has greatly enlivened the minds of those who felt the need for some such step. At present England, Ireland, and Scotland do not produce food in quantity sufficient to support the population; but this discrepancy, so important in the event of war, may be in large part removed when, with improved methods of farming and thorough acquaintance with economical utilisation of chemical discoveries, the soil of these kingdoms is brought to profitable bearing.

Those who have the good fortune to inherit land will be all the better qualified for the position if they know something of the theoretical side of agriculture; and those others who, not so fortunate, are desirous of becoming land agents or estate managers, are of necessity obliged to acquire their information by some means which will be recognised generally. To this latter end the course of study prescribed for the Fellowship of the Surveyors' Institution (as given under

the head of "Surveyors") is probably one of the best; and instead of becoming an apprentice to a firm of surveyors, a lad may go up for the associateship (or proficiency examination) therein referred to, after a two years' course in a University College or Agricultural College. This will cost money, and the youth on agriculture bent will do well to devote the three last years of his school life to the special study of chemistry, physics, biology, and geology. These sciences are needed for the course to be undertaken. The University Colleges throughout the country, of which the Yorkshire College, Leeds, may be named as representative, give both practical and theoretical instruction in agriculture and all the allied subjects, the fees being not more than £20 a year. To this has to be added the cost of living in one of these towns, whichever is the most conveniently situate. The course of instruction extends over two years, and is an excellent training for the land agency branch of the Surveyors' Institution. The County Councils, through their Technical Education Boards, in conjunction with the Royal Agricultural Society of England and private supporters, give many scholarships and prizes, some entitling the winner to free tuition, others contributing materially to his support in addition to the payment of fees. It is thus possible to reduce materially the cost of the two years' course.

The Royal Agricultural College at Cirencester, Gloucestershire, has an established reputation for the scientific teaching of agriculture with practical illustration; but its fees are higher than is the case at the University Colleges which include agriculture in their curriculum. The inclusive terms for those students who board in the College average £160, and for out-students £80; but the accommodation for the latter in the neighbourhood where food is not cheap, and when cheap is not good. There are several valuable scholarships to be obtained, which would reduce the fees of diligent, persevering students by sums varying from £20 to £70. Downton Agricultural College is situate near Salisbury, Wilts, and the fees for resident and non-resident students there are practically the same as at Cirencester, though the internal scholarships are not so

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valuable. The course of training at these colleges, as also at Tamworth, and Carlisle, and the new college near Edinburgh, include a thorough grounding in farming work from the theoretical and practical sides, the proper management of an estate, the law so far as it relates to agriculture, and all the duties of landowners and agents.

The Colonial Training College, Ltd., Hollesley Bay, Suffolk, whose London office is at 11, Pall Mall, S.W., also gives practical and theoretical tuition, and does much good work in placing the condition of affairs in the several colonies before the students. The great pastoral lands of Queensland, *e.g.*, are still in great part not taken up, and the government of that colony has done much to further its agricultural development by beneficial legislation. The Canadian Government likewise is anxious to increase its farming population by every possible means, and acquaintance with the work of one of these colleges is invaluable in the event of a young man deciding to try his fortune in the colonies.

Reading College, which has this year been affiliated to Oxford University, is devoted entirely to technical education, and being situate in a rich agricultural district, naturally devotes much attention to that study. That a degree in agriculture will soon be granted is almost a certainty; and the holder of this, or of the certificates of Cirencester, Downton, or the University Colleges, is likely to have a good opening as manager or agent of an estate. At Cambridge an endowment for the teaching of Agriculture has enabled a Professorship to be established. The *Times* and the *Standard* are the two daily papers in which such appointments are advertised, and the weekly papers devoted to the subject are also valuable media. The utility of the Surveyors' Institution Fellowship may be seen from the fact that the Irish Land Agents' Association has been recognised by the Institution as its Irish branch, and has gained in position and respect in consequence.

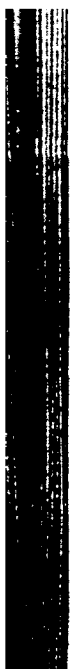
Of course, over and above all college training, there remains the old way of apprenticeship to a working land agent or large farmer; but as a premium is asked for, the

guarantee of tuition uncertain, the supervision of progressive study almost impossible, and the temptation to "laze" very great, this is not now frequently done unless indeed the principal is a relative and interested in the youth's progress, and the lad himself goes in for the college course at the same time. In this, as in every other profession, the power of the examination test grows stronger day by day, despite the growls of those who would stick to the old ways and despise "book learning" in such a thing as farming.

The life of the agriculturist, be he owner, farmer, or agent, is largely outdoor, and healthy; the anxieties due to weather, economic conditions affecting prices of produce and harassing legislation, are many, and the separation from town life is not an agreeable thing to those who are fond of the paving stones and gas lamps. But the compensations are many: the free intercourse with nature, the riding, hunting, shooting, which are the ordinary play times, are eagerly desired by the town dweller, and to the man of humane spirit there is always sufficient employment in looking after the affairs of his estate and the welfare of dwellers thereon. Much money may be made by judicious investment in horses, cattle, and stock, and in breeding them. The Royal Agricultural Society of England, the Royal Dublin Society, and the Highland Society, have by united effort obliged respective governments to aid in the preservation and strengthening of the various breeds of cattle, by prizes and contributions to the several countries.

The land agent and surveyor who is not himself an owner will find his time fully occupied in keeping abreast of the continuous improvements in machinery, farming methods, etc., and will always be on the look out to see what his foreign rivals abroad are doing. His salary will depend on the size of the estate he has to manage and the extent of his experience. The agents of the great noble landlords receive from £800 to £2,500 a year, and influence in high quarters is of much avail in obtaining one of these enviable appointments. Many men engaged as land agents add to their income by acting as valuers of land; and the legislation with respect to Irish land has provided much

employment for expert valuers, whose evidence before the various courts as to the rental, etc., is an important feature on both sides of the case. The land agent's social position is good, and he has many opportunities of advancement both for himself and his sons. The revival of agriculture in England has but begun; there seems great likelihood that the increase in the extent of land under cultivation will be regular and progressive, and with a thorough grasp of the new factors in successful land management, the skilled agriculturist will not fear the prospects of his future career.



Part II

INDIAN PROFESSIONS



## The Civil Service

“**F**OUR hundred a year, alive or dead,” as the old saying runs, is the value of the man who has successfully passed the very stiff examination which since the year 1858 has been the door through which the candidate may become a “covenanted civilian.” This is a splendid service in point of position, pay, and pension, and one that is fully appreciated, for at every recent examination the proportion of candidates to appointments offered has been something like six to one. The prospect of securing such a career as the Indian Civil Service affords, with such a comparatively small outlay, is too good to be lost by parents and guardians, who send up their sons and wards, heedless of the fitness of boys for this Service or of their possession of the talents and application necessary to obtain the qualifying number of marks—and a very liberal amount of talent is needed. It is simply waste of valuable time to allow the average boy of mediocre faculties to compete for this profession. Of course, a thoroughly good education as a groundwork is needed; and in addition to this most parents seem to think that a year or two at a crammer’s, with his exorbitant fees, is absolutely necessary for any chance of success. So to a crammer’s the boy fresh from school is sent. He finds himself very much his own master, and enjoys the time, expending a very great deal of pocket money, and attaining proficiency in many things not included in the prospectus. Whether his parents reap adequate advantages from the large (and often with difficulty procured) sum so paid is open to doubt. Take the statistics of a recent year’s examination. Two hundred and thirty-nine candidates offered themselves

for forty-nine appointments. A hundred and forty-six had been crammed, and of these thirty-one were successful, the percentage of successes being about equal to those who were not specially prepared. It is the fashion, however, to send would-be Indian civilians to cramming establishments, and certain well-known firms of tutors are in great request. In many cases their services are most valuable, and where a boy is inclined to be idle, or has not worked hard at school, the crammer is a necessity. In many large public schools, too, where the pupils' time is not too occupied with hard work, and where sports form a principal feature of the curriculum, the amount of knowledge imbibed by boys is utterly insufficient to wrestle with examination papers. It should be distinctly understood that if a boy is to compete with any chance of success without the crammer's aid he must be thoroughly hard-working and self-reliant. Talents alone will not carry him through. By far the best way to ensure success is to send the boy to Oxford and to set him to work there on the subjects of his examination. If he can get a scholarship, all the better; but he must have a University education. Trinity College, Dublin, has been very successful of late in the candidates who have gone up from there. But the crammer will ever have attractions for many, as being less expensive than a University career.

The candidate for the Indian Civil Service must be a natural-born British subject, and between the ages of twenty-two and twenty-four on April 1st of the year in which the examination takes place. He will be required to certify that he has no disease, constitutional affection, or bodily infirmity likely to unfit him for the service, and also that he is of good moral character. Having satisfied the Civil Service Commissioners on these points, he will, on payment of the prescribed fee of £5, be permitted to present himself for examination. The preliminary or open competitive examination seems, at first sight, a formidable one, including, amongst other items, Sanscrit, Arabic, and Greek languages and literature; but a selection can be made from the long list, and none of the subjects is obligatory. A syllabus showing the extent of the examination (which is now identical with



that for Class I. of the Home Civil Service and for the Eastern Cadetships : and candidates may choose either of the appointments) may be had on application to the secretary of the Civil Service Commission, Victoria Street, S.W.

Having obtained the requisite number of marks and satisfied the Commissioners upon all points, the successful candidate is placed upon a year's probation in England, during which time he has to study the Indian Penal Code and Criminal Procedure Code, the vernacular of the province to which he wishes to be appointed, and the history of British India. These subjects are compulsory. At the same time he will also take up one or more of the optional subjects, such as Hindu law, Sanscrit, Arabic, or Persian, but it must not be a subject that he has previously studied for the open examination. This year of study will, of course, be an extra expense, added to the amount allowed for a boy's qualifying for this service, but the expense need only be a small one, for if the candidate elects to pass the year of probation at one of the Universities in the United Kingdom a sum of £100 is granted him by the Government, an additional inducement to send him to Oxford or Trinity as a start. This, with an additional £100 or *less* from his parents, will suffice for his college expenditure.

At the end of the year's probation the final examination takes place, and amongst other subjects competency in riding is insisted on ; indeed, the candidate who fails to satisfy the Commissioners in this respect may be removed, and he who is rejected at the final competition may not compete again. The successful competitor signs a covenant (for which a £1 stamp is required) with the Secretary of State binding himself to obey the regulations of the service, and then proceeds to his destination, Government providing him with a first-class passage. The seniority depends on the place taken at the end of the probationary period, and not merely on the first examination.

The pay, the leave, and pension rules of this service are all excellent. The young civilian receives a commencing salary of Rs. 400 a month, but he very soon rises. The period of furlough amounts to one-fourth the time employed in active

service, a very fair proportion, and, besides this, not unfrequent visits to Europe may be made on sick leave and "urgent private affairs." After twenty-five years' service, of which twenty-one must be actual service in India, the covenanted civilian can retire with an annuity of £1,000, payable in sterling, not rupees, although retirement is not compulsory till he has completed thirty-five years' service. Towards these pensions four per cent of every officer's pay is deducted. But it is not necessary to serve for twenty-one years in order to earn a pension; should the officer find that he has mistaken his vocation, he can retire at the end of five years with a gratuity of £500. If he has served longer than this he receives an annuity of £150, with an addition of £20 for each year above the first five that he has served, the whole amount not to exceed £450. But he can only retire on medical certificate at any time less than twenty-five years' service.

After the Indian civilian has been a short time in India he is required to choose whether he will serve in the executive or judicial departments of the service. The highest post in the first is that of Lieutenant-Governor of a province; in the second, a judgeship in the High Court.

The appointments available to members of the Indian Civil Service are as diverse as the parts of the Empire over which they are scattered; from the lowly post of assistant collector, with its pay of Rs. 500 and allowances, to that of Member in Council, with the accompanying Star of India and Rs. 5,000, the covenanted civilian has a wide range wherefrom to make his selection. If he has a taste for diplomacy, the appointment of Political Agent is open to him; if law is his forte, he may become a Sessions or High Court judge, or a Judicial Commissioner. If he has a taste for figures, there is the Financial Department. He may exercise his talents as a collector of customs or revenue, or in the Survey Commission. The berth of Postmaster-General is given to him, and the position of Secretary to Government is also his.

A widely spread idea exists that Government pensions the widows and families of covenanted servants. This is a mis-

take; they receive nothing from Government. Every man on joining the service has to contribute a percentage of his income to the Bengal (or Madras, or Bombay) Civil Fund, which grants a widow an annuity on the death of her husband, and provides for his sons and daughters. The amount of his contribution varies with his status, his being married or single, and in the former event the number of his children and their sex.

The Indian Civil Service will long continue to be the object of the best brains among the young men, and its conditions as shown above are noteworthy inducements to the ambitious.

## The Police

"**A** POLICEMAN'S lot is not a happy one" is the frequent refrain of members of the Indian Police Force, more especially of those in the lower grades, for, although the service contains many excellent billets, policemen are in all countries, for some occult reason, professed grumblers. A dreary life, far removed from European society, in up-country stations and unhealthy climates, is the principal drawback to the service; but, like everything else, the life has its compensations, and in these days of overcrowded professions, when the burning question, "What shall I do with my son?" assumes gigantic proportions, there are many less appropriate answers than "Put him in the Indian Police."

The department is recruited in four ways: first, by appointment in England by competitive examinations, under regulations made by the Secretary of State for India; secondly, by examinations held in India; thirdly, by promotion of public servants, generally police inspectors; and fourthly, by direct appointment of the Indian Government. The young fellow who presents himself for examination in England must be between the ages of nineteen and twenty-one, of good physique, and unmarried; he will be allowed two trials, and an entrance fee of £2 has to be paid for the examinations in London; but when the written examination is passed elsewhere than in London the fee is £3. Ten appointments are given yearly, but the number varies. A month before this examination (which takes place in June, and is identical with that for the Forest Service, so that a student can enter for both, and choose afterwards) the candidate will have to undergo a strict examination before the Medical

Board of the India Office, and a pamphlet on the eyesight is published by the authority of the Indian Secretary, by Messrs. Churchill & Son, 11, New Burlington Street, W. A weak constitution, impaired hearing, defective vision, and bad teeth are all considered, besides any congenital defects. A certificate from the Civil Service Commission that he is able to ride well is required of the candidate. Having obtained the requisite number of marks and duly satisfied the Commissioners of his fitness for an Oriental life, the probationer, as he now becomes, is sent out in October of the same year to India on a two years' probation; failure to embark entails forfeiture. He is allowed to state his preference for a Presidency, with the reason for such selection. His passage is paid, and he receives an allowance of Rs. 250 a month. His pension for service counts from the date of embarkation. The Indian Government very wisely sets its face against improvident marriages, and any youth rash enough to marry during his two years' probation is instantly dismissed the service. The outfit is not an expensive one, as the probationer is not expected to provide himself with either mess or full dress uniform.

On his arrival in the Presidency—we will say he has selected Madras—the probationer is attached to a native or European regiment to learn his drill, and is initiated into the arts of musketry and military discipline; he is also instructed in the art of riding, and is probably woefully "done" over the purchase of a pony. His pay at the present rate of exchange comes to something like £18 10s. a month, and he will find it next to impossible to exist upon this in a large station. Of course he will not be able to afford a house of his own, so he will join three or four friends in a "chum-mery," which co-operative method of housekeeping finds much favour among the impecunious in India. His monthly budget of expenses will run, roughly speaking, thus:—Share of rent, Rs. 30-40; horse keep and *sais*, Rs. 20-25; boy, Rs. 12-15; share of cook, punkah coolies, and sweeper, Rs. 10; *dhoby*, Rs. 5; share of messing, which will be from Rs. 50 upwards, according to the amount of "Europe" stores used, the hospitality dispensed, and last, and greatest, the

amount of liquor consumed. Then come the club subscription, station amusements, races, gymkhanas, and dances, which will cause his pay to disappear rapidly. There is plenty of work to be done during the first six months of Indian life. The probationer has to attend the magistrates' courts, watching the cases and taking notes thereon; he has to perfect his riding, and many hours must be given to study with the *munshi*, for he is expected to pass the higher standard as prescribed for assistant collectors. Every week his progress must be reported to the Inspector-General. The six months pass pleasantly and all too quickly, and the probationer receives orders to go to the "Mofussil," where he acts as assistant to the district superintendent. His skill in riding is now put to the test, and he finds that there is a sheer solid amount of hard work to be got through in the police service. He learns the best methods of conducting investigations and following up clues, of sifting the grain from the voluminous chaff of circumstantial evidence, and he acquires an insight into Oriental character that would furnish mines of "copy" were he of a literary turn of mind. He accompanies his superior officer on inspection tours, and learns the art of inspecting stations and divisions. When competent he is posted to a subdivision as "acting assistant superintendent." The life is a lonely one as far as European society goes, but it is full of interest and affords capital opportunity for sport. The pursuit of "big game" will fill in the intervals and vary the monotony of office work.

Having fulfilled all requirements and passed the necessary examinations, on the result of which seniority depends, the probationer at the end of two years becomes an assistant superintendent of the third grade, a gazetted officer at a salary of Rs. 300, rising to Rs. 500. Should he be found wanting, however, he is dismissed, and his passage paid back to England should he wish it. From assistant superintendent he rises by easy stages to the rank of district superintendent, at a commencing salary of Rs. 600, rising to Rs. 1,000, and when this height is reached he looks forward to the plums of the service—the billets of deputy inspector-general, commissioner of police, and inspector-general, with their respec-

tive salaries of Rs. 1,200-1,400, Rs. 1,500, and Rs. 2,500. These last two appointments, however, may be filled up by outsiders, usually Army men. The rates of pay and allowances, besides the languages and dialects to be studied, vary in the different Presidencies.

The pension rules are those which used to be known as the Uncovenanted Service. All civil servants of the Indian Government come within their scope, except certain specified departments, such as the Indian Civil Service, which come under special rules. For service of ten years, ten sixtieths of average pay; for fifteen years' service, fifteen sixtieths of average pay, and for twenty-five to thirty years' service, twenty-five to thirty sixtieths. This sounds good, but the Inspector-General, who has been drawing over Rs. 2,000 a month, will not obtain a pension equal to half his pay, for there is a maximum of Rs. 5,000, and this, payable in England at the rate of 1s. 9d., is the highest pension obtainable, save where in some special case an allowance is made for exceptional merit. The age of retirement is fifty-five, unless special permission to continue on duty is given. Sick pensions are also granted where ill-health has been caused by the climate, and is not due to intemperance. No pensions, however, are available for widows or children. Leave rules are—one year's furlough after ten years' service, which seems a long period, but a year's sick leave is obtainable, and may be taken before that time; a second year's furlough is given after eighteen years' service, and a third after twenty-six. Three years' sick leave is allowed altogether, but not more than two years may be taken at once. Leave on urgent private affairs for a period of six months is also granted after six years' service, and occasionally extraordinary leave. The next examinations for admission to the Police Force will be held in June, 1900, when ten candidates will be selected. Candidates wishing to compete must notify their intention to the Judicial and Public Department, India Office, before May 1st, 1900, sending at the same time information whereof particulars are noted on a pamphlet obtainable at the same department. Candidates qualifying in this examination will have to leave for India not later than October, 1899.

## The Marine

OF all appointments open to sailors not in the Royal Navy, this is the best in point of position no less than pay, and the young fellow who manages to get transferred from the merchant service to the Royal Indian Marine may consider himself particularly fortunate. On the extinction of the old Indian Navy, Marine Departments were established at Calcutta and Bombay, and in the year 1877 they were united in the Royal Indian Marine, now containing some fifty-five vessels—from troopships and turret-vessels to despatch and torpedo boats and river steamers.

The would-be Indian Marine officer must possess the following qualifications :—he must be between the ages of seventeen and twenty-two, must be able to produce certificates of good conduct, and must possess a Board of Trade certificate as second mate. In the form of application he is required to state whether he has relations in the service of Government, or if his family has any claims upon the State, and where these questions are answered in the affirmative, due consideration is given to the matter. The appointments are made by the Secretary of State, but the presence of the candidate in England is not necessary. Should he reach the age of twenty-two without being appointed, his name is removed from the list. A very stiff medical examination being passed (physical perfection will soon be a *sine qua non* in all Government services), and the appointment following, the candidate, now a sub-lieutenant, is granted a first-class passage to Bombay. Government, mindful of parents' pockets, allows an advance of pay, recoverable in



India, to the extent of £25, in aid of an outfit, which includes uniform. Service for pension commences from the date of the officer joining his ship, if he is nineteen or upwards; if younger, from the date of his reaching that age; and his pay runs from the date of embarkation. Wisely setting its face against improvidence, Government makes it a condition of the candidate's appointment, that from his arrival in India, he shall subscribe to the Indian Military Family Pension Fund, for the benefit of a prospective wife and family.

The duties of the Indian Marine officer vary widely according to the class of ship to which he is appointed, but his term of service henceforth will be passed in Indian waters, unless he obtains an appointment upon a home troop-ing vessel. Indian waters include the "high seas" between the Cape of Good Hope on the west and the Straits of Magellan on the east. Carrying transports and despatches, troop-ing, inspecting lights, marine surveying, guarding convict settlements, the relief of distressed vessels, and convoying the Viceroy are some of the duties performed by Indian Marine Vessels. At Aden, Bombay, Calcutta, and Rangoon, in the Persian Gulf, upon the Euphrates and Irrawaddy Rivers, with their widely different climates and races, the boats are stationed for these purposes, and there are also gunboats temporarily lent to the Royal Navy for the naval defence of India, and a torpedo flotilla at Bombay.

The sub-lieutenant will find it hard to make his commencing salary suffice for his needs. Rs. 100 a month does not go far when mess bills have to be settled therefrom; for with the utmost economy these will absorb two-thirds of his pay, leaving but little pocket-money when the ship is in harbour. Carriage-hire from harbour to town, subscriptions to local amusements, visits to clubs, of which the officers are invariably made honorary members (and who can withstand the fascinations of the Royal Yacht Club in Bombay?), very soon make away with the remainder, leaving a serious debit account, too often met by the advances of the local Shylock. But if the pay of the lower grades is small, that of the

higher is good, and port officers and officers of the Marine Survey have little to complain of in this matter. The sub-lieutenant's pay commences on Rs. 100 a month, rising to Rs. 125. Lieutenants of under three years' service receive Rs. 150; on completing three years, Rs. 200; and on completing six years' seniority, Rs. 250. The next step is to the rank of commander, whose pay ranges from Rs. 350 to Rs. 500, according to his grade; but in addition to these rates of pay there is "command allowance" of from Rs. 2 to Rs. 10 a day, varying with the size of the vessel, and a charge allowance of Rs. 1 to Rs. 2 a day is paid to the senior officer of any vessel over 1,000 tons, when doing executive duty as such, if he has seen not less than three years' service.

The most eagerly sought berths in the Department are the shore and port appointments. There are four of the former, with salaries of Rs. 400 to 1,000 per mensem, and eleven of the latter at Rs. 320 to 870; this in addition to the ordinary pay of grade. Other good berths are those in the Marine Survey, where the surveyor in charge draws Rs. 20 per diem in addition to the pay of his grade, and the assistant surveyors Rs. 4 to Rs. 8 per diem, according to their class. The shore appointments consist of those of the deputy director and assistant director, and staff officers in the Bombay and Calcutta Dockyards. The highest post of all is that of the director, which, however, has hitherto been given to an officer of the Royal Navy. The "rule of fifty-five" is strictly observed in the Indian Marine, and on attaining that age retirement is compulsory, excepting under special circumstances. Leave in and out of India is granted solely at the discretion of the Government of India upon the recommendation of the director, excepting for periods not exceeding six months, when the director uses his own discretion. Sixty days' leave upon full pay may be granted in each year.

Although the pay in the lower grades seems small when compared with other Indian services, the pension rules are distinctly good. After twenty years' service a commander of the first grade receives Rs. 270; after twenty-five years', Rs. 410; and after thirty years', Rs. 490; lieutenants of six

years' seniority, Rs. 140, Rs. 210, and Rs. 260 for the same periods of service; and lieutenants of three years' seniority, Rs. 120, Rs. 170, and Rs. 210. The lucky few who, climbing to the top of the mast, secure the berths of assistant and deputy director receive, after five years' service as such, Rs. 2,000 and Rs. 1,000 respectively. One-third of the pension may be commuted.

All applications for information upon this Service should be addressed to the Military Secretary, India Office, Whitehall, S.W.

## The P.W.D.

**T**HERE is a sense of mystery about these letters among the uninitiated, who are unaware that they are the abbreviated and colloquial name for the Public Works Department, one of the largest and most important of Indian Government Departments, through whose agency the works required by civilisation are erected as it advances into the heart of the mysterious East. The duty of the Public Works officer is wide-reaching. He makes the roads along which progress marches, bringing remote districts within easy reach of main arteries—roads that cross the sandy waste of desert, and wind their devious courses through almost inaccessible jungle. He constructs and repairs the railroads, whose advent has brought about such a complete change in the mode of travelling in our Indian empire. He builds bridges across the mighty rivers, stems the impetuosity of their torrents by embankments, diverts their superfluous energy to useful channels, and renders the lesser streams navigable for the purposes of travel and commerce. He digs canals, and under his control is irrigation, that most important of all work, whereby deserts are turned to gardens and valleys to rice-fields. The former periodical famines, with their hideous consequences, are averted, and the ryot is no longer dependent upon the rains for the fertilization of his corn. He arranges for the water-supply in towns, builds tanks for its storage, tapping the huge natural underground reservoirs for the benefit of the thirsty multitudes. He erects the huge barracks wherein Tommy and Mrs. Atkins are housed; all Government buildings, post-offices, telegraph-offices, and Customs houses are built by him; he lays out public gardens, and plants trees for use and ornament. He is even

employed as traffic manager on the State railways, and he applies his knowledge of arithmetic as examiner in the account establishment. The P.W.D. officer (at least in the upper grades) is always an engineer.

"Are the prospects of civil engineers in India, after all, so much better than at home, when the drawbacks of foreign service—unhealthy climates and separation from relations—are taken into account?" is the question that will naturally rise to the lips of parents. Decidedly yes. The position and pay are assured immediately the candidate has qualified. The infinite variety of the work and the numerous places visited are in themselves attractive, and the pensions, with their extra allowances for certain services, very fair. Climates, too, are healthier than they used to be, now that the *sahib log* understands the conditions necessary to preserve health in a tropical climate; and visits to Europe can frequently be made with a tithe of the former expenditure of time and money, seeing that London has been brought within fifteen days of Bombay.

The higher grades of the P.W.D. are recruited in England from the successful candidates at the Royal Engineering College at Cooper's Hill, and the subordinate grades (with which, however, we have nothing to do) in India itself. The Secretary of State for India offers appointments annually in the Indian Public Works Department, the number whereof is usually notified four years beforehand, or a year before students enter the college. About fifty engineer students are admitted yearly to the college, where they have to undergo three years' training. They must be between the ages of seventeen and twenty-one, and have received a good general education and attained considerable proficiency in elementary mathematics.

The collegiate year usually begins in the latter part of September. Applications for admission as engineer students may be made at any time, but not later than the 15th of June of the year named for admission, except with the special permission of the President. The entrance examination takes place in the last week of June, and a fee of £2 has to be paid for entering it. It consists of English, Composi-

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tion, and Mathematics, besides which candidates will be required to give evidence of having received a fair general education by undergoing an examination in some classical or modern language, as well as in History or Geography. In case of a candidate possessing a University degree, the whole or a portion of this examination may be dispensed with.

As in other Indian departments, the medical examination is a severe one, particular stress being laid upon eyesight, and parents having any doubt of their sons' vision should procure a pamphlet issued by Messrs. Churchill & Sons, 11, New Burlington Street, W., on the subject. The cost of college training for three years will amount to about £600, and in addition to this the cost of outfit must be added; for this another £50 should be allowed.

Having completed his three years' training and successfully passed the by no means easy examination held during the last year of the course, the student will be appointed assistant engineer of the third grade at a commencing salary of Rs. 350 per mensem; his service for pension counts from this date, and he is also provided with a free passage to India. It will be seen from this that the commencing salary in the P.W.D. is higher than in either of the two other services recruited from this college—the Indian Telegraph and the Woods and Forests; and the student having duly passed, all expenses should cease, for this salary is sufficient for the assistant engineer to live upon. He is allowed to choose the province wherein he wishes to serve, and also the branch of the profession in which he first desires to be employed. The P.W.D. officer does not always proceed to India immediately after having passed his examination; he is frequently required to go through a course of practical training under a civil or mechanical engineer at home, and while so employed he will receive pay at the rate of £150 a year, and in addition to this he may receive a bonus of from £10 to £25 in each half-year for diligence and proficiency. The fees to the engineer with whom he studies are paid by the Secretary of State for India, and the practical course usually lasts a year. If an assistant engineer does not make suffi-

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ciently good use of his time during the practical course, he may be required to go through a further course, or in extreme cases the appointment may be cancelled. Proficiency in riding is a necessary qualification for the P.W.D.

As assistant engineer of the third grade, the P.W.D. officer will be initiated into his work and the superintendence of the large subordinate establishment with its sub-engineers, supervisors, and overseers; he gradually rises to the first grade with its salary of Rs. 550 per mensem, when he is promoted to the grade of executive engineer on a commencing salary of Rs. 700, rising by grades to Rs. 1,000. The next step is to the position of superintending engineer, with pay from Rs. 1,100 to Rs. 1,600, and thence to chief engineer on Rs. 1,800 to Rs. 2,500. Besides these posts there are the Account establishment with its assistant-examiners, deputy-examiners, and accountant-general, on a salary of Rs. 2,500, and the State Railway Revenue Establishment, where the maximum pay of the first-class engineers is Rs. 1,600. From the figures it will be seen that the scale of pay is good. These last-named posts, however, are liable to be filled by officers of the Royal Engineers. The pension rules, provident fund, and leave regulations are the same as given in the chapters on the Indian Police and the Telegraph Department, with additional allowances of from Rs. 1,000 to Rs. 2,000 a year for special services.

## The Telegraph Department

**T**HIS department is a far better service in point of pay and promotion than the Indo-European Telegraph; the climate also is, as a rule, more endurable than that of the Persian Gulf; there is, in fact, a wide diversity of climates, from the cool mountain air in the heights of Simla and Naini Tal to the burning plains of Lahore and Allahabad and the steamy damp of Rangoon. That it is an infinitely larger department goes without saying, and as the area over which it extends is a wide one, embracing as it does India proper, Ceylon, Burma, and Assam, so the scope and the chances that fall to the lot of the industrious and clever are necessarily greater. Unlike the Indo-European department, the officers in the Indian Telegraph do not rise from the subordinate ranks, which are recruited in India principally from natives and that ever-increasing multitude of Indian-born Europeans, but enter direct as assistant-superintendents when they have successfully passed the examinations at Cooper's Hill. As the prizes in this service are greater than in the other, so also are the expenses of entering it, and the amount required for this, exclusive of outfit, may be roughly calculated at £500.

The would-be telegraphist enters the Royal Indian Engineering College at Cooper's Hill (where there are fifty vacancies every year) for a course of three years' study; nominations to the Telegraph Department are made by the Secretary of State at the end of the first year, and the selected candidates have then to go through a second year's training, during which period their appointments may be forfeited if they fail to give satisfaction in their conduct, or if the



prescribed standard of qualification is not reached. The curriculum includes descriptive engineering, architecture, mathematics, surveying, and geometrical drawing, besides telegraph construction and maintenance. A medical examination has, of course, to be undergone, and a great point is made of eyesight; moreover, the successful candidate will have to furnish the President with a certificate of competency in riding before he is allowed to proceed to India. The fees at Cooper's Hill amount to £183 per annum, which includes all charges for tuition, board, lodging, and medical attendance together with washing to the amount of 2s. a week, and a deposit of £5 has to be made to cover possible damages to instruments or books, returnable at the end of the course. Candidates for admission must be between the ages of seventeen and twenty-one, and a sum of £2 has to be paid for entering the preliminary examination. Extravagance and the expenditure of money upon extras are specially discouraged at the College, and the authorities expressly state that the students' bills for extras (exclusive, of course, of subscriptions to clubs), which is usually such a formidable item at colleges, should not amount to more than a few shillings in the month.

The second year's training having been successfully completed, the student is sent out to India as an assistant-superintendent on a commencing salary of Rs. 300 per mensem; his passage is paid, and his service for pensions counts from October 1st in the year of his passing out of college. His leave and pension rules are those of the Public Works Department, mentioned in the article upon the Indian Police, but there are certain privileges in the matter of pensions not extended to all other branches. For instance, the rule which excludes service under the age of twenty from counting for pension does not apply to Telegraph officers. The maximum retiring pension is Rs. 5,000 per annum; but an additional Rs. 1,000 may be granted for special services. There is an invalid pension also. His outfit need not be an expensive one, but it should include saddlery—which is not a *sine qua non* in the Indo-European Department—and, among other things, house linen and plate of a description

that will stand any amount of wear and tear when their owner is camping out on the line. The Telegraph officer will find that his pay is sufficient, if not ample, to live upon, and with his appointment to the Department his parents' expenses should end. There is no necessity for an allowance after he has reached India. House rent will certainly absorb a large proportion of his "screw," for there are no Government quarters with furnished rooms, nor even house allowance, and if he be wise he will go in for "chumming," and join forces with two or three congenial spirits, sharing the expenses of rent, furniture, cook, and sweeper. In the station the time passes pleasantly enough; there is plenty of leisure for the more amusing phases of life when the business of the day, into which he is initiated by his superior officer, is over. This consists of office work on his own account, besides inspecting the offices worked by subordinates, telegraph-masters, and signallers, a varied lot of human beings of many shades, from the genuine fair-haired Englishman, known to the natives as a second-class *sahib*, to the whitey-brown half-caste with English or Portuguese name, the clever, plausible-tongued Baboo, and the dusky Brahmin, with caste-mark upon brow. By-and-by station life with its civilisation comes to an end, and the assistant-superintendent has to prepare for months spent upon the line on maintenance or construction work. The former, as its name implies, consists in seeing that the existing lines of telegraph are kept in proper order, and the latter in making new connections with places that hitherto have lacked this development of civilisation. The life for the time is lonely; he has to travel with a caravan of tents and camels over a distance of from five hundred to a thousand miles, inspecting the offices (probably about ten of them) along the route, and seeing that all necessary repairs and improvements are carried out. Life upon the line is economical, and out of the various travelling allowances he will be able to put by a nice little sum towards the looked-for furlough or a prospective marriage.

There is an excellent provident fund sanctioned for officers in the Telegraph and Public Works Department. The obli-

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gatory contribution thereto is five per cent. on salaries, with a voluntary contribution of a further five per cent. Compound interest, at four per cent. per annum, is credited by Government to each contributor's account. The sum accruing will be handed over to the contributor on leaving the Service, or to his heirs at death.

The assistant superintendent's pay rises to Rs. 400, with an extra hundred after twelve years' service. The next step is to the post of assistant superintendent of the second grade, with Rs. 550, and Rs. 100 allowance after seventeen years' service. Then comes that of assistant superintendent of the first grade, with Rs. 700, and an extra hundred after twenty-two years' service, after which, should there be a vacancy, he becomes a third grade superintendent on Rs. 850, and next a second grade superintendent on Rs. 1,000. Here the majority of telegraph officials stop, generally attaining the age of fifty-five before higher promotion falls to them ; but the lucky few, who are Fortune's favourites, or who possess interest (for it is absurd to talk about the days of interest being over in India), become superintendents of the first grade, with incomes of Rs. 1,125, rising to Rs. 2,150, and afterwards directors (there are three) upon Rs. 1,500. The highest appointments in the Indian Telegraphs are those of the Director-General and Deputy Director-General, on the very respectable salaries of Rs. 3,000 and Rs. 2,000 respectively, but the ubiquitous Royal Engineer officer not infrequently is lucky enough to obtain these posts in preference to a Departmental official who has entered by competition.

## The Indo-European Telegraph

**N**OT many professions require fewer preliminaries for entering than the Indo-European Telegraph Department, and considering the small expenditure necessary at the outset, the salaries to be earned therein are by no means despicable, nor the higher appointments to be looked upon lightly. The Service, although under the Government of India, is quite a separate department from the Indian Telegraph. No one unable to stand heat should entertain the idea of this profession for a moment, for its greatest drawback is the abominable climate of the Persian Gulf section, where the dreary stations on the shores of Southern Persia and Beluchistan run the West Coast of Africa and other noted fever haunts pretty close in the matter of undesirability. The continual damp heat is trying to the most robust constitution, and the lack of ice in the hot weather a want that proclaims itself; but there are also healthy stations upon this line, namely, Karachi and Bushire, where the employés are periodically transferred to recruit their health. In the Persian section the climate is far healthier; the intensely dry heat of the summer is balanced by the frosts of winter, refreshing and recuperating to debilitated constitutions.

Having elected to follow this profession, the candidate, being between the ages of eighteen and twenty-one, presents himself at the India Office armed with an introduction to the Director-in-Chief, and should there be a vacancy he may be nominated. He will be required to pass an examination (not a severe one) in telegraph signalling, and, having been certified as medically fit—good sight and hearing and sound

teeth are the principal points—for the appointment, a contract will be drawn up between him and the Secretary of State for India. This contract is binding for the space of three years, for which period he is sent out as a general service clerk, passage paid. If at the end of the time his conduct and progress are satisfactory, the contract becomes a permanent one, and the telegraphist is placed under the leave and pension rules of the Uncovenanted Service, as mentioned in the chapter on the Indian Police; but if for any reason he is found unsuitable, he is dismissed, and his passage home paid.

This department differs in one essential point from the Indian. In the latter the successful candidate from Cooper's Hill goes out as assistant-superintendent; but in the former the probationer works his way up from the lowly rank of signaller through the ranks of assistant-superintendent and superintendent to the plums of the Service—the posts of Director and Director-in-Chief. No uniform is needed, the cost of an outfit is small, and for this purpose from £25 to £35 is ample. A small quantity of house linen and plate is necessary, a saddle and gun may also be taken, and warm clothing; the white drill suits, which constitute the costume in the Persian Gulf for the greater part of the year, are best made in Karachi by the veranda-working *dirzee*.


The probationer receives a commencing salary of Rs. 150 a month, together with furnished quarters in the Government buildings and medical attendance, and he will find that one servant at a salary of Rs. 12 to Rs. 15 will suffice for his wants; whether stationed in Karachi (the most expensive of the stations) or in Persia he will with care be able to live upon his salary, even allowing for the keep of a horse in the latter country. He either remains in Karachi or is transferred by the cable ship to one of the Gulf stations, where his powers of signalling are put to the test, and he is initiated into the manufacture of batteries, electricity, and other matters appertaining to his work. At first this is not particularly congenial, entailing as it does constant night duty and Sunday work, but it has its interests, and after the six hours' day (or night) he is free to amuse himself as he will.

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Sportsmen find plenty of gratification for their tastes, and in the larger stations tennis, dances, and such social amusements are to be had. But existence in the small Gulf stations is unspeakably dreary. If Allah has granted him the gift of wisdom, he will hire a munshi and study Hindustani, Baluch, or Persian, for, although not a *sine qua non*, the knowledge of these languages is a useful step to promotion, enabling its possessor on occasion to play at leap-frog. It must be understood, however, that the department is a small one, and as local recruits are taken, the number of appointments made from home is small.

Persia is the land *par excellence* of cheap living, and no inconsiderable savings are often accumulated while there; the climate and life in the open are healthy, and, though far removed from the conveniences of Western civilisation, the sport, antiquities, and local colour give an interest to life.

As general service clerk, the telegraphist receives pay rising from Rs. 175 to a maximum of Rs. 250. If not a skilled telegraphist, a candidate is appointed as probationer on Rs. 125 or Rs. 150, and when fully qualified is promoted to the general service scale on Rs. 175-5-250. But before this latter, he is often placed in charge of a small station, with its extra allowance of Rs. 40. The next step is to the post of assistant superintendent, second class, with pay from Rs. 350 to Rs. 450, thence to assistant superintendent, first class, salary Rs. 450 to Rs. 500, and superintendent, salary Rs. 600 to Rs. 800. After this come the highest posts of the department, which, of necessity, can be attained by a few only, those of engineer and electrician, salary Rs. 800 to Rs. 1,000 and Rs. 50 house allowance; Director of the Persian Gulf section, salary Rs. 1,125 to Rs. 1,150, with Rs. 150 allowance from the Political Department; Director of the Persian section, salary Rs. 1,500, with allowance of 400 kerans for house rent during the season at Gulahek, near Teheran; and in England the post of Director-in-Chief with a salary of £1,000, paid in sterling, not in the ever-diminishing rupee. Besides these appointments, there are in the Persian section four inspectors with salaries of Rs. 175 to Rs. 250, and Rs. 60 charge allowance. If sent to the Persian



section the telegraphist will have ample riding; the Land of the Lion and the Sun is the paradise of the horse lover, and to keep a mount costs something like sixpence a day. Inspectors and assistant superintendents are granted Rs. 30 horse allowance, and superintendents Rs. 60; and where Government quarters are not available sums varying from Rs. 40 to 120 kerans are allowed for house rent.

## The Forest Department

**A**S in the case of the Indian Telegraph Department and the Public Works Department, Cooper's Hill is the door through which the would-be forester enters the service of the Indian Woods and Forests, and here he qualifies for the wild and wonderful life, far removed from the haunts of civilisation, among the deodars of the Himalayas or the gigantic teak woods of Upper Burma. The candidate for the Indian Forest Department must be a natural-born British subject, between the ages of seventeen and twenty-one: he must state his previous places of education, and be able to show testimonials of good conduct during the last four years; and he must send these particulars to the Revenue Department of the India Office on or before the 1st of May in the year in which he proposes to compete. Prior to entry the applicants have to appear before the Medical Board at the India Office, and the medical examination is severe, for perfect health and a robust constitution are two highly important qualifications for Forest officers. The life in the jungle, distant from medical aid and the luxuries of civilised life, makes good health a matter of the greatest importance. Special stress is laid upon good sight and hearing. A weak constitution, defective vision, impaired hearing, or any congenital defect, are effectual bars to this Service. Besides these things, a physical test is imposed to improve the candidate's active habits and powers of endurance.

The medical examination being successfully over, the candidate must undergo examination in mathematics and English and German composition, besides a variety of



optional subjects. A fee of £2 has to be paid for entering the examination in London, and a fee of £3 when the examination is elsewhere. From the successful competitors the Secretary of State for India will select candidates, who enter the College as probationers. The rules and entrance fees are the same as for Telegraph students, but the candidate for Woods and Forests has to study for three years instead of two, and the expenses of entering the service are, therefore, greater than those of the Telegraph. Calculating roughly, the cost of preparation will average between £700 and £800. Of the three years of instruction seven terms are spent at Cooper's Hill, and after these are ended a period of five or six months is spent in foreign travel, when Continental woods and schools of forestry are visited, and the ways of conserving forests, rearing trees, and all the methods of the profession are studied. The old French town of Nancy is one of the places usually visited for this purpose.


The sum of £150 has to be paid for the period of foreign study, and the student travels under careful supervision. The Secretary of State defrays his expenses (which must not—board, lodging, and washing included—exceed 10s. a day), besides railway fares and fees to local forest officers. The subjects studied while at Cooper's Hill include drawing (geometrical and freehand), surveying, forest engineering, accounts, German, botany, drill, and gymnastics, besides forestry, theoretical and practical, in all its branches. Marks for handwriting are also given. At the end of the first year the student is required to undergo a further medical examination to prove that his health has in no way deteriorated, also in the subjects studied. If his progress is unsatisfactory, he is liable to be dismissed. Rightly judging that courtship and matrimony are neither conducive to hard study nor appropriate to initiatory work in the jungle, Government disqualifies any candidate who marries on or before his appointment; he must take over his duties in India as a bachelor. The examinations for Forestry are simultaneous with those for the Indian Police. The next will be held in June, 1900, when six appointments will be offered for competition.

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Having passed the final examination, the student is appointed assistant conservator of the Forest Department in India. He must sign articles of agreement, and be prepared to embark whenever required to do so. Riding kit and saddlery form an important part of his outfit, as a great part of his time will be spent in the saddle. Guns, too, and ammunition should be taken, for no profession offers greater opportunities for sport than the Woods and Forests. The assistant conservator who has acquitted himself creditably will receive a commencing salary of Rs. 350 per mensem, but he who has only just managed to qualify will receive Rs. 250, and not until the first departmental examination in India is passed will his pay be raised to the higher rate.

The somewhat dubious delights of ordinary Anglo-Indian society, with its gymkhanas, personalities, polo, and storms in teacups, are not for the Forest officer. His home, far removed from "stations," is the jungle in the wide reaches of forest and undergrowth, with their teeming animal and vegetable life. His life, or the greater part of it, is spent under canvas and on horseback. He has to see that the executive staff, *i.e.* the rangers and forest guards of his circle, fulfil their duty; he has to balance accounts and make reports of the profits of the plantations. The timber of all the State forests is under his care, and he must see that the proper amount for railway fuel is cut, that the wood is applied to proper purposes, and not abstracted by forest thieves. Part of his work is to introduce foreign trees suitable to the soil, and to find out what growths will take kindly to the climate of his district. All that is to be known or learnt concerning the health and propagation of trees, he has to put into practice.

The pension and leave rules of the Public Works Department (see p. 204) have recently been extended to Forest officers, and in addition to these any officer who has rendered three years' service as the head of his department is eligible for an extra pension of Rs. 1,000 per annum. From the post of assistant conservator the officer rises to the first grade, with Rs. 450 pay, and he then becomes a deputy conservator of the fourth grade on Rs. 550, reaching by successive stages



to the Rs. 900 of the first grade. Afterwards comes the post of conservator, with salary from Rs. 1,100 to Rs. 1,600. The number of officers in these grades varies with the extent of forests in each Presidency. The Inspector-General of Forests has a salary of Rs. 2,500, the Assistant Inspector-General and the Superintendent of Working Plans have Rs. 1,100; and besides these posts there is the Forest School with its deputy director at a salary of Rs. 800, and three instructors with pay rising from Rs. 550 to Rs. 750. The allowances of Forest officers differ in the different provinces. The provinces to which they are appointed are Bengal, Assam, North-West Provinces and Oudh, Punjab, Central Provinces, Berar, Coorg, Burma, Madras and Bombay.

## The Geological Survey

**G**EOLGY at first sight does not appear to offer many attractions as a profession either in point of position or pay, and few parents ever give it a serious thought as a possible career for their sons. They prefer to turn their attention to some better known and overstocked profession, the boy's own tastes and talents, as is very usual, counting for next to nothing. We all know the boy who delights in the study of nature, who loves long rambling expeditions in the country and upon the seashore, who gathers bits of quartz and flint for his museum, who can tell you where different kinds of gravel and rock are to be found, where the chalky soil ends and the deep blue clay begins, and who asks endless questions about volcanic action and the origin and history of the fossils collected in his travels. In his infancy these researches are encouraged, for they are a capital means of keeping a boy quiet; but as he grows older little sympathy is shown for his tastes, and he is expected to turn his attention to more practical channels, which will be of use to him later on in his profession.

This is a pity, for a boy thrust into a profession contrary to his tastes rarely prospers. Now the knowledge and study of geology are of practical use, and in the Indian Geological Survey the boy who loves the science of the earth will find a life and profession congenial to his ideas. This department gives very fair pay, and grants pensions, but it must be added that it is a very small one, containing only sixteen appointments; still, the competition for places therein is fortunately smaller than in the better known and larger departments. The department requires a thoroughly good edu-

cation as a condition of entrance, and preference is given to candidates possessing a University degree. This means three years at college, and at an English University or Trinity College, Dublin, the student's expenses can hardly be put at a lower figure than £160 a year, although there are boys who manage to live and save upon a less sum, but it is hard and self-denying work. Living at the Scotch Universities is less expensive.

Besides the University degree, with its accompanying good general education, a thoroughly sound education in geology is essential, and a knowledge of French or German, or, better still, both these languages, is regarded as an important qualification. But this is not the only preparation necessary; the candidate must also have had one or two years' practical training in mines or in technical laboratories. The expenses of qualifying for this department, dating from entrance at the University, cannot be calculated, roughly speaking, at less than £750, or £600 if a Scotch University is selected; and the time occupied will be four years.

Appointments to the department are made, as occasion requires, by the Secretary of State for India. Every candidate must be in sound bodily health, and will be required to satisfy the medical board at the India Office of his physical fitness in all respects to perform the duties of a surveyor. These duties involve considerable fatigue and exposure, rough travelling, frequently through unhealthy districts, and long absence from medical aid and the appliances and resources of civilisation. The limit of age for entrance is twenty-five. Besides these qualifications, a certificate of high moral character will be required. Having satisfied the examiners on these points, the candidate becomes a probationer, and is sent to India for two years; if at the end of this time his service is approved of, he is confirmed in the appointment of assistant superintendent, and his leave and pension rules are reckoned from the date of his original appointment. The pay of a probationer and assistant superintendent is Rs. 350 per mensem, and this increases annually at the rate of Rs. 30 per mensem, the first increase being made after the officer has passed the first, or lower, standard in the language of the

country. The maximum of an assistant superintendent's pay is Rs. 500, but besides this there are travelling allowances and expenses for tentage, making an appreciable addition to his income. Promotion to the higher grades depends not only upon seniority, but also upon merit and qualification. Deputy superintendents receive commencing pay of Rs. 500, rising by annual increments of Rs. 40 to Rs. 700. Superintendents receive Rs. 700, rising by increments of Rs. 50 to Rs. 1,100. The chief appointment in the service is that of Director, who has a salary of Rs. 1,500. An officer holding the appointment of Museum Curator receives a special Presidency house-rent allowance of Rs. 150 per mensem in addition to the pay of his grade. Beside these officers, there is a Palæontologist at a salary of Rs. 500 to Rs. 700 per mensem, and two specialists, who, however, are only engaged for short periods on special rates of pay.

The life led by the Geological Survey officer is a roving one. Far into the heart of the jungle, across the sandy wastes, among the rocks and huge mountains, he travels, searching out the secrets hidden in the bosom of the earth—the gold mines, the hoards of precious stones, the ancient coal fields, the stores of mineral oil. He reports upon the unseen and unsuspected resources of the land, the undreamt-of wealth—discoveries frequently of great value, but occasionally disappointing failures. Cities know him little; his existence is that of a traveller and explorer, spent upon horseback and under canvas, unless he settles down to the town life and stationary billet of Museum Curator.

The leave and pension rules of this department are the same as those quoted in the chapter on the Indian Police, but a special invalid pension is also allowed upon the following scale: After ten years' completed service 20-sixtieths of average pay, maximum Rs. 1,000 per annum; after 11 years' completed service 21-sixtieths of average pay, maximum Rs. 1,400 per annum; after 12 years' completed service 22-sixtieths of average pay, maximum Rs. 1,800 per annum; after 13 years' completed service 23-sixtieths of average pay, maximum Rs. 2,200 per annum; after 14 years' completed service, 24-sixtieths of average pay, maximum Rs. 2,600 per

annum; after 15 years' completed service 25-sixtieths of average pay; after 16 years' completed service 26-sixtieths of average pay; after 17 years' completed service 27-sixtieths of average pay; after 18 years' completed service 28-sixtieths of average pay; after 19 years' completed service 29-sixtieths of average pay; maximum Rs. 3,000 per annum.

If the officer is obliged to retire before ten years' service is completed, he is granted a gratuity of one month's emoluments for every year served.

## The Educational Department

**I**NDIA offers a wider and more attractive field than England for the man who has made teaching his profession. Every year sees a larger number of white Indian-born children requiring education, and as the rupee diminishes parents who formerly sent their sons "home" for education have now to be contented with the very excellent instruction provided by the Indian Government in the various schools and colleges scattered up and down the length and breadth of our empire.

The Indian Educational Service consists of two departments: the first, the Indian Educational Service proper, to which appointments are made in England; the second, the Provincial Educational Service, which is recruited exclusively in India. Needless to say that the first is infinitely the better, and the highest appointments are given to the men who are selected for the department in England. The expenses of qualifying for this Service will be the same as for a teacher's appointment at home; that is to say, a University education, if not theoretically necessary, is of such importance in the selection of a candidate as to make it practically so. Now, the expenses of a boy at either Oxford or Cambridge can scarcely be computed at less than £200 a year, though, at a pinch, a careful boy may manage on £160, but then a studious boy is very likely to obtain a scholarship of £80 a year, which will materially lessen his expenses. The total cost of University training for three years will thus be £600, or if a scholarship is obtained £360. For further details as to qualifying as a teacher, see the article under the head, "Teaching," in Part I., p. 169.

Appointments to the Indian Educational Service are made as vacancies occur by the Secretary of State for India. He usually selects distinguished graduates of the Universities



of the United Kingdom, and only laymen are eligible. Preference is always given to men who have had experience in teaching at home, and there is no limit of age fixed for entering this Service. The candidate therefore will do well to take an assistant master's place for at least three or four years before he applies to the Secretary of State. After his nomination the candidate will be required to present himself before the Medical Board of the India Office, by whom he must be certified as physically fit to serve in India before he can be definitely appointed.

Parents, guardians, and candidates for all Indian appointments would save themselves much unnecessary trouble and expense, besides bitter disappointment, if, prior to applying to the Secretary of State for permission to enter Indian Services, the candidates were to undergo an examination at the hands of their family doctor, for the medical examination is daily becoming stiffer, physical perfection is aimed at, and the chances of the constitutionally delicate are daily growing less. The condition of the eyesight is important, and a useful pamphlet upon the subject has been published under the authority of the Secretary of State in Council by Messrs. Churchill and Sons, 11, New Burlington Street, W.

The first appointments are made for five years only, and newly appointed officers are required to leave for India within three months of their nomination. They are provided by Government with a first-class passage, but should they voluntarily resign the Service before the close of five years for any other cause than ill-health, they will be required to refund their passage-money. The pay usually begins at Rs. 500 per mensem, and increases by yearly increments of Rs. 50 per mensem to Rs. 700. If the officer gives satisfaction during his five years' probation, he becomes entitled to the leave and pension rules of what was formerly termed the Uncovenanted Service time and set out under "The Indian Police." For ten years' service the pension is Rs. 1,000, increasing according to time served to Rs. 5,000 for thirty years' service. An extra Rs. 1,000 may be given for special efficiency, dating from his original appointment. His pay for the fifth year is Rs. 750 per mensem, rising

by annual instalments of Rs. 50 per mensem until the maximum of Rs. 1,000 a month is reached. Besides these scales of pay, which are given to professors of colleges and inspectors of schools, there are the posts of superintendents of schools of art. They carry special rates of pay, and the applicants for them are required to possess special qualifications. An art master's certificate is necessary, besides a thorough knowledge of drawing and the higher branches of descriptive geometry.

The principal appointments given to officers of the Education Department lie within the three Presidencies. In Bengal there are the Presidency, Cuttack, Dacca, and Patna Colleges, containing posts of principals and professors, besides which there are three Presidency inspectorships; in Bombay the University of Bombay and the Deccan, Elphinstone and Rajaram Colleges, and the College of Science in Poona; in Madras the University, besides the Presidency and six other Colleges. In addition to these institutions, there are the educational departments of Assam, Burma, the Central Provinces, Hyderabad, Coorg, the North-West Provinces, the Punjab and Sind, so that it will be seen that the Education officer has a wide choice of countries and climates from which to make a selection. The expenses of the officer's life will vary considerably, according to the district in which he resides. In the larger towns, such as Bombay and Calcutta, he will, if he be married, find some difficulty at first in making both ends meet, although as a bachelor his salary will be ample; in the smaller towns, where house rent is considerably lower, the pay will, of course, go much further. His life is passed in cities, in the society of his fellow creatures, within reach of medical aid and such social advantages as Anglo-Indian society affords. For him there are no hardships to be undergone, no wild life in the jungle, nor is the greater part of the year spent in the society of natives and wild game only. His tours of inspectorship are made in comfort, by rail, by steamer, or by dak service; and if his department does not contain so many highly paid appointments as others, the lower scale is amply compensated by the better conditions under which his service is passed, and the preservation of health accruing therefrom.

## The Staff Corps

PARENTS whose means come under the category of "limited" rarely give a thought to the Army as a profession for their sons, considering, and rightly so, that the necessary expenditure is beyond them. After the initial expenses of Sandhurst or Woolwich are done with, the subaltern in a British regiment cannot be expected to live upon his pay, and an allowance, during the first few years of service at any rate, will have to be made from the parental pocket. Even in the least expensive of regiments the man absolutely without private means will find it a difficult matter to keep up his position and prevent the necessary rigorous cheese-paring from becoming too apparent. But the boy who is bitten with "scarlet fever," who spends his time in studying military tactics, histories of armies, and the lives of their leaders, and who declares that he will rather take the Queen's shilling than lead a civilian's life, need not be condemned to an office-stool or some other equally uncongenial occupation on account of expense. In the Indian Staff Corps he can gratify his taste for a soldier's life without the necessity of a private income.

The sum required to qualify a lad for the Staff Corps is not a large one, not greater than that needed for entering the majority of professions in the East; and once in the Service his future is assured, he is independent of further help, for his pay will suffice for his needs. Formerly the Indian Staff Corps was recruited in India from British regiments, among officers under twenty-five years of age, but since 1892 candidates have been allowed to pass direct

from Sandhurst, by which arrangement much trouble and expense are avoided. A certain number of appointments are offered every year to candidates for admission to the Royal Military College, but all Queen's cadets (both British and Indian) will be allowed to choose whether they compete for commissions in the British or in the Indian Army. The Sandhurst course being completed, and the final examination passed, the successful candidate is gazetted as second lieutenant on the unattached list of the British Army, and is provided with a passage to India. His outfit and uniform will, of course, entail some expense, but this is the last to which his parents will be put. From the date of his commission, and until he reaches India, he will receive the ordinary British pay of his rank, 5s. 3d. a day.

Directly India is reached the officer is attached to a British regiment for one year. During this time he receives the Indian pay and allowances of an English officer, and at the end of this probationary period, his conduct having been judged satisfactory, he is admitted to the Staff Corps as second lieutenant and appointed to a native regiment. He bids farewell to Tommy Atkins, and takes command of dusky warriors—little Gurkhas, abstemious Sikhs, or long-haired, wild-eyed Pathans. During the next fifteen months he is expected to study the native language, and as soon as he has passed the lower standard he is promoted to the rank of lieutenant. Within three years from the time of his admission to the Staff Corps he has to pass the higher standard in native languages, and until these examinations have been passed he will not be eligible for any permanent or officiating appointment, except that of squadron officer. It will be seen from this that the knowledge of Eastern languages forms an important item in this profession, and to succeed in the Staff Corps it is essential that a boy should have a decided taste for languages, besides the faculty of acquiring them easily; otherwise it is of little use allowing him to compete. Should an officer fail to pass the above-mentioned examinations within the prescribed three years he will be removed from the Staff Corps and provided with a return passage to England. He may or may not be allowed

a year's pay due to his rank in a British regiment, at the discretion of the Government of India.

The appointments eligible for members of the Staff Corps are as varied and wide-reaching as those open to covenanted civilians. Foremost in point of importance comes the Political Department, with its residents, political agents, assistants, and superintendents, who are stationed in outlying portions of the Empire, in the capitals of native States, where their duties are to protect British interests, and carefully guide native potentates in the way they should go, seeing to it that they do not err from the narrow path of moral rectitude. Westward a consul is a man of small importance diplomatically, being chiefly of use to *viser* passports, collect commercial statistics, and help the guileless tourist whose ignorance of railway regulations and the vernacular has led to the loss of his luggage and temper; but eastward of Suez his counterpart, the political agent, frequently a Staff Corps man, enjoys a very different position. His value can scarcely be realised in the bustling, matter-of-fact life in Europe. The position of Judge-Advocate General may be attained by the Staff officer, if he has a legal turn of mind, and he may dispense justice and endeavour to sift the grain from the voluminous chaff of native evidence in the lowlier rank of cantonment magistrate. If figures attract him, there are the berths of Accountant to the Military Department and Pay-Examiner in the Quartermaster-General's Office; positions on the State Railways and in the Survey fall to his lot, and in the more lowly but eminently utilitarian Commissariat Department he can live, especially if married, with much economy, for samples go a long way in housekeeping, and he may put by a substantial sum towards expenses in Europe. The boy who loves horses will be able to gratify his equine tastes to the full in this Service; there are many posts open to officers who make this study their speciality; they are sent upon journeys to various parts of the world, to study the methods of horse-breeding and to purchase animals for Government. Languages, as has been said, form a most important qualification in the Staff Corps, and lately the

authorities have seen the necessity of encouraging officers to learn Russian. An officer wishing to study this language may proceed to Russia, and there remain for a period of not less than eight months for this purpose. He is upon full pay during this time, and is granted an advance of money. If he passes the examination before the Civil Service Commissioners on his return to England, he is qualified as interpreter, and receives a bonus of £200, besides £40 travelling expenses.

The regimental pay of Staff Corps officers, in addition to that of appointments, is for a lieutenant, Rs. 225-12 per mensem; a captain, Rs. 374-1-6; a major, Rs. 640-14; a colonel and lieutenant-colonel, Rs. 827-14; and a general, Rs. 1,295-5. Besides this there is horse allowance, varying according to the rank of the officer, but he has to provide himself with quarters. The special appointments above mentioned carry either consolidated pay, or pay in addition to staff salaries. The highest salaries attainable are Rs. 3,500. The pension for twenty years' service is £250; for twenty-four years, £365; for twenty-eight years, £500; for thirty-two years, £700. Any officer remaining in the service till he is sixty-two years old gets £800, and lieutenant-generals and generals over the age of sixty-seven receive pensions of £900 and £1,000 respectively. Invalid pensions are also granted, and the pay while on leave is upon a liberal scale. Widows and children of officers are provided for by the Indian Military Family Pension Fund, to which the I.S.C. officer contributes.

## The Bengal Pilot Service

**A** PILOT! The word conjures up a vision of a rough-bearded, weather-beaten individual of a stolid type of countenance, who, clad in oilskins and a sou'wester, clambers up the ship's side from a small boat, and, mounting the bridge, takes temporary command of the vessel. He is a man who speaks a rough dialect, and whose person is redolent of beer and tobacco; he is recruited from the ranks of the working classes, and could never by the widest stretch of imagination be classed as a gentleman. With this individual in mind, the career of a pilot does not seem a suitable one for a boy, no matter how bent upon such a career he may be. But it is merely a question of geography, and latitude and longitude put a different complexion on the matter.

When the Calcutta-bound ship finishes her ocean journey at the river's mouth, a steam launch comes alongside, and a dignified man, clad in immaculate white drill and a respectable solar tope, boards the boat. He has an air of importance, the mien of one accustomed to command, and he is followed by a servant carrying a bag. He is greeted joyfully, and much respect is shown him as befitting a man of high position; and such he is, for he is one of the Hughli pilots of the Bengal Covenanted Pilot Service, whose business it is to conduct vessels through the treacherous, ever-shifting sands of the Ganges mouth to the safety of harbour. He has little in common with the Western type of pilot, knowledge of local currents being perhaps the only matter in which they are alike. The position is one that offers decided attraction to a certain class of boys. The pay, com-

the ordinary pleasures of Anglo-Indian society enjoyed by other residents in the capital. The Hughli pilots, therefore, form a class apart; they have their own club, their own associates, and their own pastimes, all of which, however, are permeated by the all-absorbing condition of the river.



## The Ecclesiastical Establishment

OF all classes perhaps it is the clergymen of the Established Church who feel most keenly the burdens of increased taxation and cost of living. For the most part gentlemen by birth, and having received an expensive education, they are expected to keep up a position befitting their calling, too frequently upon the most inadequate means. Recent statistics show that 400 beneficed clergy receive less than £50 per annum, 3,500 less than £100, and 7,000 less than £130. To men with such livings (or rather "starvings") as these, to curates wishing to marry, or to those more reckless ones who have already entered the bonds of matrimony, the prospect of a chaplaincy in India with its ample income opens a vista of freedom from pecuniary worries, a pleasant life and society, together with the knowledge that should any untimely fate overtake the chaplain, his wife and family will be provided for, and that, the days of his active service being over, he will receive a very respectable pension.

"Candidates for appointments as chaplains on probation must have been three years in priest's orders, and be under thirty-four years of age; and must, prior to appointment, produce their Letters of Orders, Deacon, and Priest, as well as the testimonials and certificates in the form prescribed." So runs the circular issued by the India Office. Would-be chaplains must apply for nomination to the Secretary of State for India, who in his turn refers all nominations to the Bishop of London, and they are confirmed only on his approval. Certificates of nomination by the Secretary of State, Letters of Orders, Deacon, and Priest, a testimonial

(whereof the forms are supplied) signed by three beneficed clergymen and countersigned by their Bishop, a statement of the cure or cures in which the chaplain has been engaged, and the names of two or three private clerical referees must be forwarded to the Bishop's secretary one month before his approval for the appointment is required. The applicant's antecedents being found satisfactory and the Medical Board pronouncing him physically fit for service in India, his appointment receives episcopal sanction, and a free passage to India is provided, subject to the condition that if the chaplain within three years, on grounds other than certified ill health, relinquishes his appointment, or is removed from it for misconduct, he will refund the cost of such passage.

At first the appointment is on probation only for three years, and during this period pay (which commences on reaching India) will be Rs. 4,800 per annum. At the end of three years the chaplain, having given satisfaction, has his appointment confirmed, and becomes a junior chaplain with pay of Rs. 6,000 per annum. After ten years' service as junior chaplain, excluding the three years' probation, he becomes a senior chaplain on an income of Rs. 9,600, and this is not a case (as in other services) of waiting for the retirement or translation of seniors; as soon as he has put in his term of service, the junior chaplain receives the pay and position of the higher grade. In addition to this there are varied allowances, travelling, wedding, and funeral fees, which help to eke out an income, besides one or two church *peons* (messengers) who may be put to varied domestic uses. Unlike missionaries, the chaplain receives no house allowance, nor is he granted extra pay for each additional child, an arrangement which, in these days of over-population, needs no comment.

From the date of his arrival in India the chaplain has to subscribe to the Indian Service Family Pension Fund; he has to make the required donations thereto upon his marriage, and upon the birth of each child (£12 10s. for a son and £20 for a daughter), besides making the customary monthly contributions for wife and children. Upon his death his widow receives a pension of £70 to £100 per

annum, according to rank, his boys £30 per annum until they reach the age of twenty-one, and his girls from £12 to £30 during childhood, and £45 per annum from the age of twenty-one for life or until they marry—the last regulation obviating the sad but frequent spectacle of gently brought up clergymen's daughters left penniless in middle age, and turned adrift to swell the ranks of incompetent workers.

After twenty-three years' service in India, with an actual residence of twenty years, including the period of probation, the chaplain retires with a pension of £365 per annum, payable in sterling, not rupees. If he retires on medical certificate after eighteen years' actual residence in India, he receives £292; after thirteen years' residence, £173 7s. 6d.; and after ten years' residence, £127 15s.

The chaplain's duties in India lie wholly and solely among the white portion of the community, and that large and daily increasing half-caste population, of varying shades of colour, who consider themselves European, and who present a question of serious proportions to Indian statesmen. With the heathen he has nothing to do. Government, recognising all religions, forbids its servants to proselytise, although should any native of his own free will seek instruction in the tenets of the Sahib's faith, it is always given. In spite of the sufficient income (and with care one may live comfortably on Rs. 5,000 to Rs. 9,000 a year), in spite of the carriage, servants, and other accessories, looked upon as luxuries at home, and in spite of the free medical attendance, the pleasant exchange to the hills and the free railway passes, the Indian chaplain's life is not altogether an easy one. Although the community are good-hearted, kindly, and sociable, a large proportion of the wisdom of the serpent is needed to prevent undue tension with the various heads of departments, who are very apt to resent any efforts on the chaplain's part to become a social reformer. India is essentially conservative and of easy orthodoxy, and modern innovations in the matter of ritual in small stations are apt to be treated, not with disapproval, but, what to the man wrapt heart and soul in his work is infinitely worse, with

amused tolerance. As long as the weekly parade service is conducted decently and in order, few care about daily services, matins, vespers, saints' days, and Lenten fasts.

A newly arrived chaplain, interviewing the General commanding the district as to the amount of parade services to be held, was told that these must be limited to Sunday mornings and Christmas Day.

"On Ash Wednesday and Good Friday also?" inquired the chaplain; to which the General replied that he could not possibly allow two parade services in one week.

This story is characteristic of the attitude of the ordinary Anglo-Indian towards what are termed "Church Privileges." The man of liberal views, of scientific knowledge, the student of human nature, the Broad Churchman of the school of Charles Kingsley, is the best fitted for the every-day life of an Anglo-Indian chaplain, and will succeed with his congregation where his Ritualistic or Evangelical brethren would fail.

The Indian Ecclesiastical Establishment also includes chaplains of the Church of Scotland. The rules for pay, leave, and pensions are the same as those for the Anglican Establishment. Candidates for such appointments must have been licensed for three years, and be under thirty-four at the time of application. They are nominated by the Secretary of State as vacancies occur, and applications for such nominations must be submitted to the General Assembly's Committee on Indian Churches, with testimonials as to family, age, education, and occupation. The Committee will recommend the most suitable candidate to the Secretary of State. After nomination, candidates have to forward certain documents to the Clerk of the Presbytery of Edinburgh, which inducts to their office chaplains already nominated by the Secretary of State for India.

## The Medical Service

OF all overcrowded professions that of the doctor is among the fullest. The healing art in these days of scientific discoveries presents great attractions to boys and to their parents, who, with happily optimistic minds, consider only the large incomes gained by the chiefs of the medical profession, and rarely stop to think of statistics and the very small percentage that attain to the higher honours; while they utterly ignore the fact that there are a multitude of qualified men earning barely sufficient to keep body and soul together. The prospects in England of a young fellow who has qualified for the medical profession are not particularly bright, unless, indeed, he has the necessary cash wherewith to purchase a practice or a partnership; this failing, there remains little besides an assistantship or a Government appointment, and these last are few and far between, and much sought after. Such being the case, the newly fledged doctor, unable to find the funds for purchasing a practice, will do well to turn his attention to the Indian Medical Service, which offers permanent appointments, good pay, and an excellent retiring pension to the man who otherwise would spend his life in earning a pittance, with no prospect of adequate provision for sickness and old age. Nor is the outlay for entering the Service extensive. Over and above the ordinary outlay requisite for a medical education, it need cover only the purchase of an Indian outfit and uniform.

The candidate who desires to enter this Service must be between the ages of twenty-one and twenty-eight at the time of applying to the Military Secretary, India Office,

Whitehall, S.W., for permission to attend the examinations, which usually take place twice a year in February and August, the number of vacancies being given in the advertisement. He must furnish proofs of age, a personal recommendation as to his character, a certificate of registration under the Medical Act, and a diploma showing that he has had a three 'months' course of instruction in the ophthalmic department of a hospital, or in an ophthalmic hospital itself. He must possess a diploma or diplomas entitling him to practise both medicine and surgery in Great Britain. Whether the applicant is married or single is of no consequence. Possibly the Indian authorities consider that doctors are less addicted to improvident marriages than the rest of the human race. Prior to the first examination the physical fitness of the candidate is considered, and he has to pass the Medical Board. As in all Indian Services, a high standard of health and physique is required, and a great point is made of good eyesight, although a certain degree of short-sightedness is allowed, provided always that operations can be performed without the use of spectacles. A fee of £1 has to be paid for entering the examination, which takes place in the following subjects: Anatomy, physiology, surgery, medicine, chemistry, and pharmacy; these are compulsory. French, German, Hindustani, and natural science are optional.

Having successfully passed the first examination, the candidate proceeds to the Army Medical School at Netley for a four months' course of practical instruction in the diseases and injuries incidental to military service. It is here that the military element, the distinctive feature of the Indian Medical Service, enters his life for the first time; he is required to provide himself with the undress uniform of a surgeon-lieutenant, but without the sword, and is granted quarters with the usual light and fuel allowance of a subaltern, and he receives 8s. a day pay. At the end of this course the final examination takes place, and the successful candidate receives the commission of surgeon-lieutenant; he is allowed to name the Presidency in which he prefers to serve, but whether his request is granted de-

depends on his position on the list. Candidates may compete twice. The doctor is now a surgeon-lieutenant, enjoying the full benefits of military rank. During the last few years the status of Army doctors has very materially improved, and the contemptuous terms of "sawbones" and "pill-roller" are no longer applied to them. Since 1891 they have been granted the rank of combatant officers, and have taken precedence as such, to the disapproval of the older and more conservative portion of the Service.

Until India is reached the surgeon receives an allowance of 10s. a day, and his passage out is generally made on board a troopship. On landing in India his Indian pay and allowances begin, and these he will find ample to supply his wants as a bachelor, although if he be wise he will refrain from matrimony until he gets promotion. The pay for a lieutenant is Rs. 317-8 to Rs. 335-5-12; for a captain Rs. 443-6-11; for a surgeon-major, Rs. 677-6-11; and for a lieutenant-colonel, Rs. 851-8-7 to Rs. 888-12; in addition to these rates there are staff allowances for various appointments, and the consolidated pay, as the two together are called, amounts to sums from Rs. 1,000 to Rs. 2,700 per mensem. Doctors attached to cavalry regiments receive horse allowance, but no house rent is allowed. In order to qualify for Staff appointments, with their extra pay, surgeons must pass the lower standard examination in Hindustani, and a failure to pass this places the higher allowances beyond reach. Besides military there are civil appointments, and married men especially appreciate these with their stationary life; all surgeons, however, have to perform two years' regimental duty in India before becoming eligible for them. But, in addition to these rates of pay, the Indian medical officer, more particularly he who has a civil appointment, has another source of income, and frequently a large one. In all big stations there are a number of people, merchants, store-keepers, and bank employees, who are not in Government service, and are therefore not entitled to free medical attendance, but must pay upon a fixed scale, usually Rs. 10 for each professional visit. From these people, their wives, and children the surgeon makes

his harvest. Then, again, when appointed to out-of-the-way places, as residency-surgeon in some native State, there are wealthy natives, who avail themselves of the *Feringhee Hakim*, and who often give handsome presents in addition to the usual sum of rupees.

After three years' full-pay service the lieutenant is promoted to captain. The captain is promoted to major after twelve years' full-pay service, and the major to lieutenant-colonel after twenty years' full-pay service. All promotions above the last-named grade, however, are given by selection for ability and merit.

The retiring pensions of this Service are decidedly good. After seventeen years' service the medical officer receives a pension of £292 a year, after twenty years £365, after twenty-five £500, and after thirty £700. His widow and children receive the pensions granted to the families of H.M.'s British Forces, in addition to the pensions of the Indian Service Family Pension Fund, to which all medical officers have to subscribe. Officers are also eligible for extra good service pensions.

Every profession has its drawbacks, but in this Service they cannot be considered numerous, although it must be allowed that there is a certain amount of danger in the profession. Not much, it is true, but just enough to give a spice to life. If attached to a native regiment, the medical officer leads a varied life of movement and activity; much riding falls to his lot, and sport and polo form the principal of his relaxations. He sees active service in frontier disturbances and border risings, giving him a chance of earning distinction in the fortune of war, and occasionally resulting in a V.C. When possessed of a civil appointment he has the ordinary dangers of Anglo-Indian life to contend with, the periodical outbreaks of small-pox, cholera, and plague, and he cannot isolate himself and avoid infected areas with the precautions taken by other members of the community; but here, too, distinctions are to be gained.



## The Bar

**O**VERCROWDED as are many of the principal professions at home, few, if any, can equal the Bar in the matter of this undesirable characteristic. "A nominal profession" it is generally considered, and unfortunately it too often proves nominal to the man in search of briefs, who imagines that a large amount of merit, capacity for working, and an average amount of talent are the only requisites for decent success in it. Nowhere, in no other walk of life, is mediocrity more thoroughly doomed to failure, and (although very few mothers will admit this) mediocrity is the rule with the large proportion of boys.

The prospects of the Bar in England or Ireland are not good, and the man who enters it will require parental support for perhaps half a dozen years or more after he has been called. But the fact that the prospects at home are bad need not prevent a boy entering the profession if he prefers it to all others, for in India the outlook is decidedly brighter, and the many Government appointments for barristers bring in an income which at least is certain, and a pension after active service is over. The higher appointments, with their excellent position and large salaries, are more easily obtainable than at home, and ambitious lads who aim at the highest branches of the tree of legal promotion will find that they are more quickly reached in the gorgeous East than in the United Kingdom. Irish barristers are equally well qualified as their English colleagues. Barristers are unanimous in agreeing that one of the causes of the present depression of the Bar is the growing disinclination of people to go to law, and every year sees fewer quarrels settled in

court. Evidently we are growing wiser, and prefer to keep our money than pay for a legal purification of our linen. "One man's meat is another man's poison," and in this case the poison falls to the lot of the barrister. Many newspapers, too, "retain a barrister" (usually a copy of "Every Man his own Lawyer") to answer legal inquiries and advise upon any subject for the price of a copy of the paper. But this spread of wisdom has not yet reached India, and of all people on the face of the earth the inhabitant of Hindustan, be he Hindu, Parsee, or Mohammedan, is the most litigious. He rushes into law about the most trivial matter, and is prodigal of the amount he spends upon lawyer's fees, to the great benefit of the latter class. Recently a woman obtained a summons against her neighbour because her hen laid its eggs in his garden, and was much displeased when the magistrate dismissed the case, declaring it to be the hen's fault.

The boy who wishes to qualify for the Bar must join one of the London Inns of Court, Lincoln's or Gray's Inn, the Inner or Middle Temple, or in Ireland the King's Inns. He must not be in trade, and his admission form has to be signed by two barristers. Twelve law terms have to be kept, which means a course of three years' study, and examinations have to be passed in Roman law, real and personal property, and common law. For some occult reason this examination is considered easy, but the percentage of men "ploughed" for it is larger than that of Oxford, Cambridge, and Dublin honours. Full details of the profession will be found in Part I, p. 86.

Only a few of the higher Indian appointments, however, are made at home, and these are given to men who have already made their mark there, so the newly fledged barrister will have to proceed to India on his own account and at his own expense, and begin his career by private practice. Given a fair amount of ability and capacity for work, he will find that the period of waiting for work will not be a long one, and when he has become known a Government appointment is pretty sure to be offered him as a vacancy occurs. The principal appointments given to barristers in India are those

of Judges of the Chief Court of the Punjab, Judges of Small Cause Courts (representing county courts) of Presidency towns, and the Recordership of Rangoon. Besides these appointments, the barrister may become Secretary to the Government of India in the Legislative Department, Official Trustee, Official Assignee, Government Advocate, Government Solicitor, Government Prosecutor, Clerk of the Crown, and, highest appointment of all, Legal Member in Council. There are also positions wherein partial services only are engaged by Government, and the barrister is allowed to employ his spare time in taking private fees.

As soon as a barrister is engaged in Government Service, he becomes eligible for the ordinary pension regulations, and receives a retiring pension, varying according to the length of service, of from Rs. 2,000 to Rs. 5,000 per annum, this last being the maximum, except when in cases of especially meritorious service an extra allowance is granted. A special rate of pension may be given to officers holding one of the first-mentioned positions, who may receive an invalid pension of £300 per annum after six years and nine months' service, or of £500 per annum after eight years and eight months' service, and after eleven years and six months' service the very respectable retiring pension of £750 per annum. The barrister has a further privilege in that he is exempt from the rule of "fifty-five." With him retirement is not compulsory at this age, as in most Indian services, and he can continue in harness as long as he pleases.

The expenses of qualifying for a legal appointment in India cannot be computed at less than a thousand pounds; indeed, from twelve to fifteen hundred would be more correct. The three years of keeping terms in London or Dublin will absorb at least £600, and the expenses of journey, outfit, and maintenance for the first year or eighteen months in India will take from £400 to £600. But in this, as in all careers, the requisite allowance will depend upon the young fellow's tastes and character.



**Part III**  
**MISCELLANEOUS. PROFESSIONS**



## The Consular Service

THE Western Consular Service occupies a lower rung on the professional ladder than the Eastern. It lacks the advantages of social position, pay, pension, and diplomatic opportunities that place the Eastern Consular Service on its high footing; but if it wants the dignity and importance of the East, the Western Consular Service, European, African, or American, is a very desirable service, containing many possibilities, and by no means to be despised. In Europe the pay is smaller than in countries further afield, but the advantages of climate, proximity to home, and smaller living expenses are very substantial, well worth the sacrifice of a superior position and a few extra dollars yearly. Hitherto many of the British Consuls have been natives and subjects of the countries in which they act: but a proper spirit of nationality is doing away gradually with this anomaly, and ere long the British Consul abroad will be always a British subject. This change is calculated to increase greatly the number of the Consuls on the Foreign Office list, so that vacancies will occur more frequently, and promotion will be in a wider sphere.

Many people, old-fashioned people especially, regard Consuls in the light of railway agents or *commissionnaires de place*, people whose sole duty is to find lost luggage, supply servants and couriers, and recommend hotels and lodgings; and to this use, sorely against the grain, many European Consuls are put. They frequently perform with much courtesy such unwelcome offices, although coming far outside the range of their duties. Travellers, whose want of

knowledge of the vernacular and ignorance or disregard of existing regulations have embroiled them with local officials, expect the Consul to extricate them from their difficulties and uphold their claims, be they never so outrageous: and when judgment is delivered against them, they accuse the British representative of incompetence and write indignant letters to home papers. Rash and improvident tourists who start abroad without duly counting the cost, look upon him as a convenient money-lender, and frequently forget to repay the sums lent. At seaport towns, skippers even regard him as a coal agent. But the Consul has an official position, and one which in the larger towns of Europe is a very important one. It gives him social standing, if he wishes to avail himself of it, brings him in touch with many interesting people, and procures for his wife the *entrée* of society in certain cities, though in others the rule obtains that Consuls are not allowed to attend Court.

The first step towards obtaining a Consular appointment is to procure a nomination from the Secretary of State for Foreign Affairs. This is a matter of influence in high places, but much stress is now placed on the fact that the Consul needs to possess not alone the literary and lingual qualifications, but also certain business faculties and an indefinable tactfulness; this is usually ascertained at a personal interview with one of the high officials of the Foreign Office. Such nomination having been obtained, an examination has to be passed before the Civil Service Commissioners. This examination is not a difficult one, and the principal subject is, of course, a practical knowledge of foreign languages. First, and most important, comes French; it is a necessity that the candidate shall speak and write this fluently and correctly, and, besides French, he must have a thorough knowledge of the tongue prevailing in the country in which he desires an appointment. Consuls at all the northern towns of Europe must understand German; Spanish, or Portuguese (as determined by the Secretary of State) is necessary for Spain, Portugal, Morocco, and South and Central America; while Italian is requisite for Italy, Greece, Turkey, Egypt, and ports on the Black Sea and Mediterranean



and Russian for Odessa. Another *sine qua non* is a thorough knowledge of the principles of British mercantile and commercial law in all its branches. These are: (1) Shipping; (2) Negotiable Instruments, Bills of Exchange, and Promissory Notes; (3) Contracts for the Carriage of Goods; (4) Contracts of Marine Insurance, Bottomry and Respondentia. The other subjects are English composition, writing from dictation, and arithmetic.

The examination before the Civil Service Commissioners being successfully passed, the Consul does not proceed to his destination at once, but attends for three months at the Foreign Office, where he is initiated into the methods of conducting business, and learns the principles of international law. The limit of age for candidates is a large one, being from twenty-five to fifty years, and the fee charge for the examination varies, the maximum being £6.

Undoubtedly the best method of qualifying for a Consular appointment is a residence upon the Continent, and parents will do well to send their sons for a year or two to some French, German, or Italian town, where a thoroughly practical knowledge of the language (especially in the technical expressions connected with all Consular business) and the people among whom they are to live can be acquired by the candidate. This being done, a few months' study at home of the other subjects required by the Commissioners is all that is necessary to equip them for their posts. The expense of the equipment is not great, although the age of twenty-five may seem rather late at which to start a career, entailing as it does parental support until the appointment is finally gained. The successful candidate is frequently (though by no means always) appointed at first as Vice-Consul, with a salary commencing at £150, together with certain office allowances, but the pay of Vice-Consuls, as well as Consuls, varies widely, according to the importance of the places where they are stationed; for instance, in Egypt Vice-Consuls receive £400. A Consul's pay in Europe varies from £400 to £700, with allowances, and in America it runs higher, for local living expenses are taken into consideration. The possibilities in this service may be gathered

from the fact that men showing special talent may be transferred from the Consular to the Diplomatic Service. The highest appointment in the Service is that of Consul-General, carrying pay from £900 to £1,200 a year, which pay and allowances are free of taxes.

The pension rules of Consuls are those of the Civil Service. After ten years 10-60ths of the pay is allowed, after fifteen years 15-60ths, and so upon the same scale till the maximum of 40-60ths, for forty years' service, is reached. Sixty is the usual retiring age, but where a man has special qualifications he is permitted to remain longer in harness. Consuls' widows do not receive pensions unless their husbands have met their death while on duty; but where a man has rendered valuable service to his country and his widow's means are considered inadequate, a compassionate allowance, varying from £50 to £150 a year, is granted her.

In the larger European cities, and in the smaller Northern seaports with their healthy climates, the lines of Consuls are fallen in pleasant places. Life and surroundings are desirable, excellent educational advantages are obtainable for their children, and home is near; but farther off, in South and Central American stations, and on the dreaded West Coast of Africa, drawbacks are numerous, and the worst side of the service is seen. Appointments, however, in really unhealthy stations are of short duration, and in them two years' service is counted as three.

Another Consular Service Appointment is that of Consular Clerk, for which a nomination is required; the age for entry is 17 to 50 in the case of China, Japan and Siam: elsewhere, 17 to 40 is the limit. The subjects of examination are, handwriting and orthography, arithmetic, and one foreign language, the test in which is speaking, translating, and copying. The salary is on a lower scale than the Vice-Consuls, and there is less prospect of promotion, but men of ability have chosen this method of acquiring the knowledge of special languages and have passed the examination for Vice-Consuls.

Clerks in the Teheran, Tangier, and Madrid Legations are appointed by nomination from the Foreign Secretary, but

have, like the Consuls and Consular Clerks, to pass a qualifying examination in handwriting and orthography, arithmetic and French. The age is 18 to 40, and these clerks are on the Diplomatic Staff, not the Consular.

## Eastern Cadetships

**T**HE Civil Services of Ceylon, the Straits Settlements, Hong Kong, and the Protected States of the Malay Peninsula, although inferior to the Covenanted Service of India in point of position, pay, and pension rules, are professions possessing advantages, and are superior in many ways to what is colloquially known as the uncovenanted department of Indian Government Service. The pay is higher, and the position is equivalent to that of covenanted civilians. These services are recruited by cadetships, which were formerly frequently bestowed by favour, but recently the regulations respecting admission to the departments have undergone a thorough revision, and candidates now enter by open competitive examination. In August the examination takes place, and candidates intending to enter for it must be natural-born British subjects, and between the ages of twenty-one and twenty-four. Robust health is a necessity, and, as in other Government Services, great stress is laid upon good eyesight. The condition of the teeth is also a most important matter. A fee of £6 has to be paid by every candidate attending the examination, but this fee will also include admittance to the examinations for the Indian and Class I. of the Home Civil Services, and candidates can choose which branch they desire to serve in. The list of subjects for examination looks a formidable one, including as it does Sanskrit, Arabic, Greek, Latin, French, English and German languages and literatures, besides ancient and modern history, political science and economy, chemistry, physics, Roman and English law, mathematics, geology, botany, zoology, animal physiology, and mental

and moral philosophy; but it is not so stiff as it seems, for none of the subjects is obligatory, although the candidate will do well to take up one or both of the Eastern dialects mentioned. Whether he will serve in Ceylon or in one of the other States depends upon the place of the candidate in the examination: the more successful men choose the Home Service, the next the Indian, and the Ceylon and Oriental appointments are left for those in the lower places. Successful candidates are allowed, in order of merit, to choose between the colonies. The Secretary of State may allot appointments as he sees fit, and the requirements of public service come before every other consideration. Every selected candidate will be required to leave for the colony a month after the results of the examination have been made known. The remarks on the course of preparation for this examination will be found both under the Home and Indian Civil Service articles (pp. 24 and 191).

The successful candidate who has chosen the Civil Service of Ceylon for his sphere of action has to devote himself on his arrival in that country to the study of Singalese and Tamil. He receives an allowance of Rs. 80 a month during the first twenty-one months, for payment of the pundit (native teacher) who instructs him in the intricacies of these languages. He is at the same time attached to a public office, which he must attend for a certain number of hours each day, studying details of public business and doing such work as the Governor shall direct. At the end of twenty-one months a first examination in Singalese and Tamil takes place, consisting in reading, writing, and conversation in one of these languages. Law and Government accounts are also subjects for both the first and second examinations. If he passes this his post is confirmed, and his service will count from the date of his first appointment as cadet, but if not his claim to pension-ranking service will be deferred. Should he fail to pass within three years from his arrival in the country his pay will cease, and the Secretary of State will be recommended to cancel the appointment. Before any important appointment can be held a second examination has to be passed, similar to the first, but more difficult.

The commencing salary of a cadet in Ceylon is Rs. 3,000 a year, or about £200 at the present rate of exchange; this is increased by Rs. 500 as soon as he has passed the first examination, and is further augmented upon his obtaining an appointment. The posts in the Civil Service of Ceylon range from Rs. 4,000 to Rs. 18,000 a year, officers in the 4th class receiving from Rs. 4,000 to Rs. 4,500; 3rd class, Rs. 7,200; 2nd class, Rs. 9,600 to Rs. 10,800; and 1st class, from Rs. 12,000 to Rs. 18,000 per annum. The Government now calculates the rupee at 1s. 10½d. for the purpose of payment in England of half salary or pension. Although the commencing salary seems a small one, it should suffice for the needs of the cadet. Living is not expensive in Ceylon's balmy isle, and by chumming with other young fellows whose pay is of the same lowly grade the new arrival can manage to make both ends meet, if he does not indulge in a plurality of ponies, and exercises a control over his "boy's" expenditure of European stores.

Six years seem a long time to look forward to, but before that period leave upon half pay (save in exceptional cases, such as serious illness, or really urgent private affairs) is not granted. Then a year, or a year and a half is given, and a like period after another six years of service. In addition to this short leave upon full pay may be taken, provided the time does not exceed three months in any two years.

Fifty-five is the retiring age of this service, but should ill-health render a longer sojourn in the country undesirable, a pension is granted after ten years' service. This pension amounts to fifteen-sixtieths of the average annual salary for three years prior to retirement, to which one-sixtieth of salary is added for every year of additional service. A deduction of four per cent. is made from the salaries of all who enter the Ceylon Civil Service, which goes to the Widows' and Orphans' Pension Fund.

The candidate who has chosen the Civil Service of Hong Kong, the Straits or Malay, receives a commencing salary of 1,500 dollars a year as soon as he reaches the State to which he has been appointed, and he has to study native languages under the supervision of the Governor or Resident,

who will frame regulations for his work. Like his fellow cadet in Ceylon, he must attend at public offices for a certain time each day, to be initiated into the mysteries of public business. Quarters, teachers, and books are all provided for him. Occasionally he is sent for a period to China, in order to learn the Chinese language, or, in the case of the Straits and Malay Services, to Madras as well, to study Tamil. The candidates who choose the Straits Settlements and Malay are also required to pass in law, colonial regulations and Government orders, beside the native languages; otherwise, they are identical with the Hong Kong Service. Directly his first examination in Chinese has been passed he is temporarily employed in some Government department, and his salary is raised to 1,800 dollars; he also becomes eligible for permanent appointments as vacancies occur. Such appointments range from 2,400 dollars a year to 6,500 dollars, the maximum attainable in the Straits and the Malay Peninsula being 7,800 dollars. The salary, leave and pension rules in Hong Kong, the Straits Settlements, and the Malay Peninsula, are identical with those of the Ceylon Civil Service. The dollar is valued for payment of half salary in England at 4s., and for payment of pension at 3s. 8d.

The cost of entering these Services depends solely upon the methods adopted for qualifying for the competitive examination, and the training may be expensive or the reverse, as an expensive crammer at home or a University career is employed; but once having passed the examination before the Civil Service Commissioners, no further expense, beyond the cost of outfit, is necessary. In Hong Kong, in the Straits Settlements and in the Malay States the cadet ought to live upon his pay equally well with the young civilian in Ceylon. The commencing pay does not, of course, allow for extravagant outlay or much indulgence in sport and amusements, but for ordinary maintenance it suffices, in spite of the low rate of exchange; and when the cadet takes leave in Europe, or retires upon a pension, his salary is paid at a fixed rate, as mentioned above. There are usually more vacancies for the Straits and Malay Services than for Hong Kong and Ceylon.

In point of desirability it is hard to make a distinction between the two Services; there is little difference. In pay, position, and prospects they differ but little; but when climate has to be considered Ceylon presents many advantages. The warm, damp heat and oppressive atmosphere of the Straits Settlements and the enervating climate of Hong Kong are exceedingly trying to many constitutions; indeed, to all who cannot frequently exchange the low-lying plains for hill stations or healthier latitudes.



## Student Interpreterships for Eastern Countries

**D**IPLMACY! The word has a mysterious attraction, a fascination for the clever and ambitious; the profession contains endless possibilities, and given tact, ability, and aptitude for manipulating the delicate relations between divers nationalities and easing the tension that constantly arises, the power and importance to be obtained therein are great. Not that student interpreters belong to the Diplomatic Service, as the term is ordinarily understood; they are not of the rank of attachés, they do not become ministers and ambassadors, but in spite of this a large amount of diplomacy falls to their share in the exercise of their duties when attached to missions and consulates. They see and assist in the secret wirepullings that move the puppets in the drama of life.

This profession is divided into two branches. There are student interpreters for the Ottoman Dominions, Persia, Greece, and Morocco, and also for the Far East, China, Japan, and Siam. Of the two branches the former is by far the more important, besides offering the greatest opportunities for the exercise of those special qualities suited to diplomacy; and the climates and conditions under which the period of service is passed are better than those of the second branch of this Service.

Candidates for the Service must be natural-born subjects of Her Majesty, and the place of their birth is important; for all not born within the precincts of the United Kingdom, or born therein of parents not born therein, have to obtain

special permission from the Secretary of State to compete, otherwise the examination is open to all who have the necessary education. Candidates must be between the ages of eighteen and twenty-four, and unmarried. The examination is held before the Civil Service Commissioners, and is competitive, the obligatory subjects being handwriting, orthography, reading aloud, arithmetic, English and Latin composition, translations from and into French, writing from dictation; also a French letter upon ordinary subjects and conversation. Besides these, there are the optional subjects of ancient Greek, Italian, German, and Spanish. A fee of £4 has to be paid by every candidate entering the examinations. The competition for these vacancies is curiously varied: one year fifty-eight candidates competed for three vacancies, in another year nine for two vacancies. The Latin paper is the stumbling-block to many, and the arithmetic paper is by no means a nominal test.

And the best way of qualifying for these examinations? A year or two on the Continent, in some French or German educational centre, preferably a German university town, where he can board in a German family, and thus become thoroughly familiar with two, or, better still, three Continental languages, grammatically and colloquially, is the best possible preparation a boy can have for the position of student interpreter. Besides the actual teaching he receives, his mind is enlarged and the horizon of his ideas is widened by life under conditions other than those he has known at home and at school; he is given the opportunity of associating with varied classes of people, and forming judgments respecting them—an opportunity which will have an important bearing on his future career. But this method is often impracticable for a variety of reasons, expense in these hard times being one of the chief, although splendid education and board in a family are to be had at wonderfully reasonable terms in many of the less fashionable German towns. In the larger German cities, such as Hanover, there are many excellent establishments where boys obtain tutoring and a thorough mastery of the German tongue, combined with English comforts and food.

Supposing this method to be out of the question, and that the boy must prepare for the examination at home? There are coaches innumerable, who for very high fees undertake to prepare candidates, and there are others who perform the work equally well for a smaller sum. Another method of qualifying, and one that is of great benefit to people living in remote country districts, is tuition by correspondence; where the pupil is clever and has had the advantage of a good school education, this method is excellent. A University graduate with special honours in languages has an excellent chance of success. In view of the obligatory term of study at Oxford, it is clear that a student of that University will be materially aided by success in this examination.

And the expense of entering the profession? This depends solely upon the method taken to qualify. It may cost a few pounds only, as when classes at some English institution are attended; and it may cost some hundreds, by spending a couple of years upon the Continent or at some well-known crammer's.

Having passed the preliminary examination before the Commissioners, the candidate has to proceed to Oxford, and here two years, with not less than nine months' residence in each year, must be passed in the study of Oriental languages. Examinations have to be passed at the end of the first and second years of residence, to show that the student is making satisfactory progress, and success in these is required to qualify for admission to the Service. During the period passed at the University a salary of £200 a year is paid to defray his expenses. Before going to the University, however, a bond must be executed with the Government, and a sufficient surety found for the payment of £500 in the event of his leaving the service or being discharged from it within five years. A severe medical examination has, of course, to be undergone. Education in Turkish is provided at the public expense, but students have to pay the University fees for instruction in other Oriental languages. The studies of the students are under the control of the Board which superintends the instruction of the Indian Civil Servants. When the two years' course at the University is finished the

candidate is appointed as an assistant to one of the missions or consulates in Turkey, Persia, Greece, or Morocco; his passage out is paid by Government, and he is given a commencing salary of £300 a year. Before proceeding further, he has to pass an examination in the Civil, Criminal and Commercial Laws of Turkey, and in International Law, in the history, language, mode of administration of the country chosen in which he has resided; and to show a general knowledge of Turkish history, especially in regard to its treaty relations with foreign powers. All further advancement depends on his efficiency and general good conduct, and these being satisfactory, the higher political agencies and the more important Eastern Consulates, with their high salaries and important positions, are within his reach. Vice-Consuls receive salaries up to £400, and Consuls from £500 to £1,600, with allowances, and the usual Consular rate of pensions. Now that the Eastern question has assumed such gigantic proportions, and new phases are developing daily, the opportunities of this Service increase, and he who knows how to profit by them has his career assured.

Student interpreters for China, Japan, and Siam have also to pass an examination before the Civil Service Commissioners; but it is an easier examination, and the conditions of age and birth are the same. Arithmetic, orthography, handwriting and English composition are obligatory. Précis, geography, Euclid, Latin, French, German, criminal and mercantile law are optional subjects. A fee of £4 has to be paid for entrance to this examination. Having passed the competitive examination, candidates are not sent to a University, but have to proceed at once to the country to which they are appointed. Here they are expected to devote themselves to the study of the language, and qualify themselves generally for the public service. Their salary is fixed at £200 a year, commencing ten days before leaving England, and their passage out is paid. Like the other branch, they have to enter into a bond for repayment of money if they leave or are discharged within five years, but the sum is for £300 instead of £500. A sound constitution and good sight are necessities, and all candidates must be

physically fit for a prolonged residence in tropical climates. After passing their probation they are appointed temporarily as assistant in a consulate, with a salary of not more than £350, which after five years' service becomes permanent. Second-Class Assistants receive £350 a year; First-Class Assistants, £400; Vice-Consuls, from £600 to £900; Consuls, from £800 to £1,200; and Consul-General, £2,100. Allowances are paid of from £50 to £100 to the Assistants who are specially qualified as Interpreters, and allowances are made also to Vice-Consuls and Consuls, for house rent, office expenses, etc. In this branch also promotion depends upon ability, steadiness, and good conduct. This promotion is made to the rank of Consuls in these three countries, positions which require much knowledge, understanding, and tact, and differ fundamentally from those filled by Consuls in Western Europe. The pension rules for these departments are the same as in the Consular Service, but special appointments have special conditions attached to them. The present condition of China is such that a very considerable extension of the British Consular Service there is almost a certainty within the next year or two; and the commercial development of Japan (from within) and Siam (largely under French influence) points to an increase there also. The number of vacancies is likely to be increased, and the competition, which hitherto has not been very keen, will become more so as the ultimate value of these posts (carrying as they do unique opportunities of public distinction and reward) becomes generally recognised. The existing regulations for both the near and far Eastern Services are likely to be altered in the direction of requiring greater efficiency and experience in the candidates chosen: and the Foreign Office influence may affect the present open character of the competition. Again, the Government of the Soudan will require skilled assistance of a nature similar to the Student Interpreters: but at present no information is available, and in any event the scheme of appointment will not differ, so far as the literary qualification is concerned, from that already existing for the Mohammedan countries.

## The Royal Irish Constabulary

**F**OR reasons into which it is not necessary here to enter, the preservation of the peace in Ireland has been for over fifty years entrusted to a force military in its character, its drill, and its organization. The rank and file number at the present time close upon 12,000, and are divided into counties, the head officer of which is known in each case as the County Inspector. Under these 36 gentlemen—for the counties of Cork and Tipperary require more than one County Inspector—there are some 220 District Inspectors, to each of whom is assigned a district varying in size and population. The District Inspectors are arranged in three classes for seniority; the first class, the highest on the list for promotion, consisting of 90, the second class 90, and the third 40. The city of Belfast enjoys the services of a Constabulary official known as the Town Inspector, whose rank and pay are better than that of a County Inspector. It will be seen at a glance that the proportion of senior posts to the entire service is considerable—37 out of 252, or one in seven. But, as will be shown, the prospects of promotion are even better than this would indicate.

The Cadetships in the Royal Irish Constabulary, by which the ranks of the District Inspectors are recruited, are the subject of a competitive examination, for admission to which a nomination is necessary. The power of nomination is vested in the Lord Lieutenant of Ireland, but actually is exercised by the chief Secretary to the Lord Lieutenant. There has also been instituted a system of promotion, whereby head constables, with certain records of service and under a certain age, are allowed to compete in a literary and service

examination for every second vacancy that occurs, so that the force is now officered, half by promotions from Head Constable to District Inspector, and the other half by limited competition as described previously. Political and personal influence is needed for obtaining a nomination, and the examination is by no means perfunctory. Although coming under the head of Limited Competitions, the examination has been made by the Civil Service Commissioners a test of considerable difficulty. During recent years eight competitions have been held, the positions to be filled amounting to 81; and for these 31 vacancies 303 persons have been nominated to compete, or, on an average, 10 to each vacancy. Of the 303 lucky recipients of nominations 101 did not proceed to the examination, so that 202 actually competed for the 81 vacancies, or rather less than 7 for each cadetship. This is a much smaller proportion than in many other Civil Service appointments.

When the nomination has been obtained (no easy task), the candidate has to show that he is between 21 and 26 years of age, that he is at least 5ft. 8in. in height, and that his hearing, speech, and sight are in no way defective. The medical test is a stringent one, and will account for the one-third of nominated candidates who did not go forward for examination. Another important qualification is the ability of the candidate, or his relatives, to provide at least £50 a year as supplemental to the cadet's pay whilst under instruction. In the case of officers of the Army or Navy, the maximum age is extended to 28. The fee for the examination is £2, and the usual application is made to the Civil Service Commissioners, London, S.W., for particulars as to time, place, and circumstances of the examinations. The subjects of examination and the maximum marks allotted to each are as follows:—Arithmetic, 150; Separate Addition, 50; Orthography, 150; Handwriting, 150; Digesting Returns with Summaries, 100; English Correspondence (including Epistolary correspondence), 200; Précis, 150; Geography (especially that of the British Isles), 150; British History (including that of the Constitution), 200; Latin, or French, 200; the Elementary Principles of Law (as treated in the 12th Edition of *Stephen's Commentaries of the Laws of England*, Vol. 1,

Introduction, Book I., Book II., Introductory Chapter, Vol. 4, Book VI.), 150; Law of Evidence (*Digest of the Laws of Evidence*, by Sir James Fitzjames Stephen), 150; Reading aloud (print and MS.), 50; Total, 1850. The qualifying test in Latin is translation into English; in French, translation from French into English, and from English into French, and a moderate proficiency in speaking French. A percentage of 70 is necessary for success, as will be evidenced by the fact that the first and third successful candidates recently scored 1328 and 1310 marks of a possible 1850. The preparation for this examination must be thorough and complete, but few candidates can hope for success without the aid of special instruction; and one or two crammers make a speciality of preparation for it.

Now that the candidate has displayed his literary qualifications, he awaits the summons to join the *Depôt*, which is pleasantly situated in the Phoenix Park, Dublin, just outside the confines of the city. Here he will undergo a course of drill, of horsemanship, and of some legal study, under the direction of the Commandant, who is an Assistant-Inspector-General. He will learn as much as possible of the theory of his duties, and will receive the pay of a constable, fifteen shillings a week, whilst awaiting the occurrence of a vacancy in the list of 3rd Class District Inspectors. He will not, however, receive an appointment unless he has made satisfactory progress during his term of residence, which varies according to vacancies from six months to one year. Should he prove unfit for the Constabulary, he will be removed.

In due course the cadet is appointed to the rank of 3rd Class District Inspector, of whom there are 40, in receipt of £125 a year, with allowance for the keep of a horse and the wages of a servant and lodging allowance, amounting in all to about £240 a year. He will be put under some senior officer and will learn his duties gradually; so that in about from three to four years he will be fitted for promotion (on the occurrence of a vacancy) to the 2nd Class, with a salary of £165-£180, and increased allowances. Among the 130 2nd and 3rd Class District Inspectors



are allotted twenty-three Good Service pay of £12 each; and the two District Inspectors attached to the Crime Branch at headquarters, Dublin Castle, receive an allowance of £150 each. The Private Secretary to the Inspector-General is a First-Class District Inspector, and receives in addition to his pay and allowances £150. The 2nd Class D. I. (as they are usually known) will be given a large district to control, always under the eye of the C. I., and will probably spend at least ten years in that rank before he reaches the 1st Class, the 90 Inspectors in which receive a salary of £225 rising to £300, with allowances. Six receive Good Service pay of £30 each. The 36 County Inspectors, a rank rarely reached under twenty-five years' service, receive £350-£450, according to the County which they control; one of their number is attached to the Crime Branch and receives an allowance of £250, whilst 5 receive Good Service pay of £50 each. The Town Inspector of Belfast receives £600; the Commandant of the Dépôt (who is A.I.G.), £850 and allowances; 2 Assistant-Inspector-Generals at headquarters, £850; and in addition these 3 officers act as Divisional Commissioners. The Deputy-Inspector-General is in receipt of £1,800, and the head of the force, the Inspector-General, is rewarded with £1,800. Promotion to these posts is made from the ranks of the Inspectors, and they are open to any man who possesses the faculty of success. Influence in high places is useful, but unless competent and gifted, the person who can command influence finds it of slight avail.

In addition to the opportunities of promotion which the R.I.C. itself possesses the District Inspector has reason for hope in other quarters. Many of them qualify as barristers, and this is a help in several directions. The Resident Magistrates, a body peculiar to Ireland, and resident only in the sense of being subject to promotion and transfer, have been of late years recruited largely from those District Inspectors who have shown special ability and who possess legal knowledge beyond the average. The Resident Magistrate receives a salary, varying according to length of service and seniority, from £500 to £700; and is entitled

to a pension on retirement. The change from the position of D.I. to R.M. is slight, except in the question of pay; the social condition is if anything improved, and there is more opportunity for the display of talents justifying higher employment under the Crown in Ireland. The Resident Magistracy is a distinct field of advancement, which is rightly regarded by the officers of the Constabulary as being one for which they are especially fitted.

The excellent organization of the R.I.C. has made it a model for similar Services under the Crown in the Colonies, and more than one Chief of Police or Administrator in the West Indies or the West Coast of Africa has graduated as a District Inspector. These posts have of late been frequently given to officers of the R.I.C., whose records justified the Inspector-General's recommendation. They are well paid, are among the prizes of the Colonial Service, and have more than once led to high office in the Administrative Service. Sir Henry Blake, the Governor of Hong Kong, is an example of such promotion. Residence in these climates entitles the official to a pension much more quickly than at home. Herein, as in the case of Resident Magistrates, influence is undoubtedly useful, and will often avail to secure an appointment for which the applicant may be thoroughly well qualified, but which without such aid would have passed beyond his reach.

The vacancies in the position of Chief Constable in the principal towns and County districts in England are filled by election, the local body or County Council in whose hands the appointment lies receiving many applications from officers in the Army. But the trained constabulary officer will naturally be preferred, if merit alone decide the matter; and within the past few years several appointments of this kind have fallen to the lot of officers of the R.I.C. They are well paid, and as a rule carry the right to a pension; but details vary in each case, and the matter is only mentioned as another opportunity for promotion outside the force.

The social position of the R.I.C. officer is good; his official rank secures him the acquaintance and friendship

of the wealthy classes, and the occasions on which he comes into collision with the people are happily becoming less frequent. Time was when the D.I. carried his life in his hand as he drove home at night from a Petty Sessions court, or from investigating a case of outrage or assault. More than once has a D.I. come to a violent death; but happily the settled condition of Ireland has brought about a great change, so that now the Constabulary cadet can look forward with safety to a natural end. The pay, if small at first, is sufficient to defray all *needful* expenses from the time he leaves the Dépôt, and the outlying stations to which juniors are usually sent do not allow much scope for extravagance. There is a good deal of work, routine and special, to be done; but leave is regular and liberal, the seniors sympathetic and encouraging; and a pension, that boon of Government employment, looms welcome at the end of a long career. The life is largely open air, and the general surroundings are such as to make the lad who joins the R.I.C. fairly well pleased with the result of his choice.

## The Cape Mounted Rifles and the Rhodesian Police

**A**FRICA is the land of possibilities. It possesses a charm and attraction to the adventurous beyond any other country. It is the country of adventure, of the unknown, a land of gold and diamonds, where fortunes are made by lucky chance instead of by continuous labour. It is the scene wherein much of the modern fiction of adventure is laid, the site of many perilous incidents and hair-breadth escapes that charm the healthy-minded boy. But the Africa of reality differs widely from the fortune-making land of fiction. Penniless emigrants on their weary return march to the sea tell a very different tale; and the boy who, without friends and introductions, goes to South Africa in the hope of something turning up is pretty generally doomed to be disappointed, and, instead of the well-paid berth he expected, has to content himself with working for a bare pittance, such as he would have despised at home.

At the same time there are openings in South Africa for duly qualified boys and professional men (clerks always excepted—these are a drug in the market all the world over), and Government appointments are to be obtained in the Civil Service, the Police, and the historic Cape Mounted Rifles, which every lad of adventurous tastes and fond of riding looks upon as the acme of an exciting profession.

During the last few years this Service has been recruited in Cape Colony, and boys wishing to join had to go out

uncertain as to whether they would succeed in entering the corps or not; in too many cases the expenses of passage and outfit were wasted, and much valuable time lost by the unsuccessful candidate; but this has now been changed, and recruiting in England has been once more resumed.

In order to obtain admission to the force, candidates must now apply to the Agent-General for Cape Colony, Victoria Street, Westminster, S.W., instead of (as formerly) to the Commanding-officer in King Williamstown, and some influence is necessary to secure a favourable reply. In no profession is the possession of robust health and a good physique of more importance, and the candidates most likely to be selected are those who have been accustomed to an outdoor life, and who have made their mark in athletics. He who can handle a gun, and possesses some knowledge of horses, is chosen in preference to the town-bred youth. Candidates must stand at least 5 feet 6 inches in their stockings, have a chest measurement of thirty-six inches next the skin, and must not weigh more than 160 pounds. The limit of age for entering this service is from nineteen to twenty-eight. A very severe medical examination has to be passed in England, and this being satisfactory the candidate is allowed to proceed to South Africa. Before doing so he must deposit the sum of £27 6s. with the Agent-General, the cost of his second-class passage to East London. On his arrival, and before he is admitted to the force, the candidate undergoes a second medical examination, and if this corroborates the first he is duly enrolled as a private of the second-class for a period of five years. On enrolment he receives the sum of £10 in aid of the purchase of a horse, and a free outside kit, consisting of helmet, boots, pantaloons, patrol jacket, and other articles of wear; but when these are worn out he must renew them at his own expense. Arms and horse fare are provided free.

Commissions are given to those who show themselves worthy of promotion after service of seven or eight years in the ranks. When the five years' service has expired a further engagement for three years is entered into, and the eight years' term being passed, subsequent engagements of

three years each are given. Non-commissioned officers who have duly qualified for promotion have to pass an examination before receiving their appointment, and there are examinations for the higher grades. The commencing pay of a private is 5s. a day, of a first-class private 6s., and of a corporal 6s. 6d. Sergeants receive from 7s. to 9s. Lieutenants receive 13s. 6d. to 17s. 6d. after ten years' service, and captains 16s. a day, increasing annually by sums of 1s. a day to 22s. 6d. Also they are allowed 5s. a day extra for travelling expenses and for the care of arms and Government property in their charge. A major's pay is £500 a year, with a travelling allowance of £100, and a lieutenant colonel receives £650 a year, with a travelling allowance of £300. Besides these scales of pay, quartermasters receive £365, and an increase of £50 a year after ten years' service; adjutants and musketry instructors, £500 a year and £25 a year after ten years' service; surgeons, £450, increasing by £50 a year after ten years' service; and paymasters, £450 a year, and an increase of £50 a year after ten years' service.

It will be seen from this that the scale of pay is fair; but it must be remembered that the life is a very hard one, and although the candidate when starting considers this but little, he realizes it later on, when the first blush of novelty has worn off. As by degrees the years creep on and promotion passes him by, he finds the duties of a private or a non-commissioned officer irksome and wearying in the extreme, and only supportable while health continues good. The whole of the force is engaged in police work. In the saddle at all hours of the day and night, performing forced marches under the burning African sun, spending weeks far removed from civilization, camping out without the conveniences of canvas upon the bare earth with its drenching night dews, sustained only by the coarsest and poorest of food, frequently in want of water, the Cape trooper discovers the meaning of hardship. Giving chase to marauding gangs, tracking desperadoes—whites, Afrianders, and natives—affording protection to lonely farms and distant settlements, risking the chance of death in encounters, and ever on the

alert to quell disturbances, he endures dangers and faces perils unknown to the police of civilized lands.

The development of the great territory known as Rhodesia is as yet scarcely begun, and all the arrangements for the police administration are in the hands of the British South Africa Company, 18, St. Swithin's Lane, E.C., from whom particulars of their service can be obtained. Occasionally an advertisement or some inspired notification appears in the papers that men are wanted for service in Rhodesia; but personal influence, even more than that required in the case of the Cape, Natal, the Australian colonies or New Zealand, is needed before a man is taken. The physical conditions are practically those of the Cape Mounted Rifles, but greater in every respect; and the Rhodesian trooper has to suffer a climate of greater extremes than in the Cape provinces. The wealth of Rhodesia, mineral, agricultural, and pastoral, is probably as great as that of India, although the gold mines have but recently begun to show profitable working; yet the fact remains that it is the country next to be developed and colonised by Englishmen, and there is a great desire to go there, so that by actual inspection on the spot one can see where to settle. The British South Africa Company has, under the supervision of the Colonial Secretary, practically all the powers of government and ownership; and it is considered not to have quite decided as to its policy towards individual adventurers. The conditions of its organization for police are, in the main, identical with those of the Cape Mounted Rifles; but it may vary these at any time; and those who take service are likely either to become important administrative officials, or to remain so long in a subordinate position that to leave the force and take up commercial life seems the only hope. Engineers, agriculturists, mining engineers, these are the men to whom Rhodesia offers the most inducements; and, for all purposes, the British South Africa Company is the only channel of approach. The territory is so vast that all extremes of climatic conditions can be experienced. Part is as civilized and settled as one of the home counties, whilst another is still in the hands of semi-hostile natives. The influence of

the railway, which will connect the Cape and Cairo, and have numerous branches, will be great in opening out this great tract of semi-tropical country; and there is much likelihood of a second India arising under the tropic of Capricorn.

There is a large military element in the British South Africa Company's service; and for some time this will be continued, in view of the need for organizing the new country and its executive in hands already accustomed to discipline and military routine. The policy of the controlling genius is understood to be favourable to the young man, who, fearless, capable, and determined, is ready to go into the new continent and work there in accordance with the prevailing spirit. The pioneer in Southern and Central Africa has all the pioneer's disadvantages and the pioneer's chances, and the battle is to the young. Rhodesia has enormous potentialities, but it will demand many sacrifices in return.



## The Cape Colony and Natal Civil Services

THE English Civil Service is known to all, with its varied appointments and widely diverse scale of salaries. The Indian Civil Service, with its high position, generous pay, and magnificent pension, and its abnormally stiff examination, has for years been the profession for which parents of clever sons have destined their offspring; but the various Colonial Civil Services are far less known, although they are open equally to boys from the old country and to colonials. Compared to the Indian Civil in point of pay, position, allowances, retiring, and family pension, the South African Service is very poor indeed, in everything in fact, except climate; but when this is duly considered it is no small matter, for upon it health, the mainspring of life, depends, and many a boy whose constitution a few years of malarial stations and tropical sun would ruin, may lead a life of perfect health and strength in the salubrious climate of the South. Many who cannot stand the damp and fogs of the British Isles thrive when transplanted to the Cape. Another favourable circumstance connected with the Civil Service of Cape Colony, and one which is perhaps unique in ordinarily desirable professions throughout the civilized world, is to be found in the Agent-General's reports. *The supply of suitable candidates for the Civil Service is not in excess of the demand.* This, in the days when something like fifty candidates, of whom quite half are equally eligible, offer themselves for nearly every vacant appointment, is in itself an important consideration.

Special inducements are held out to the Cape Mounted Riflemen who enter the Civil Service, for officers of ten years' service in or above the rank of lieutenant are admitted irrespective of age. For other candidates the limits of age are seventeen and twenty-five, although occasionally this last age is extended to thirty. Candidates must be of robust health, and possess a thoroughly good character. The examination for the Service has to be passed in Cape Town or Graham's Town, and a fee of £1 has to be deposited with the Secretary of the Civil Service Commission for the Cape Colony before the candidate may compete. This examination is not a stiff one; history, arithmetic, geography, writing from dictation, and précis work form the principal subjects, but besides these, a special and thorough knowledge of the Dutch language is required. These subjects are for the ordinary examination, but there is also a special one for which the candidate may enter if he chooses, and which, if passed, will bring him substantial advantages in the way of superior billets. The subjects in the special examination are French, German, and Kaffir, book-keeping, logarithms, shorthand, and typewriting; or any single one of these subjects may be taken up. Of individual subjects the Kaffir language is the one that will prove most useful, appointments to many departments of the Civil Service depending on a knowledge of it. Those who have passed the matriculation of the University of London are exempt from examination in reading, geography, and history. An official list is published of all those who have passed the examination, with a note of the number of marks gained, and when a vacancy occurs in any department the Minister in charge fills it with the name of the person upon the list who is in his opinion most fitted for the post. All appointments are made for a probationary period of one year. The successful candidate may now, if he wishes, sit for a further examination, that of the Civil Service Law, in which the subjects are Dutch and English law, and having passed this he is eligible for magisterial appointments.

The appointments in the Civil Service of Cape Colony are many and varied, for they include those of telegraphists,

guards and engine-drivers, clerks, accountants, labour agents, magistrates, and chief magistrates; and the scales of pay vary as much as the class of appointments. Large areas of the colony are put aside and vested in trustees for the use of the natives; they are called locations, and these locations have Inspectors and Superintendents, who receive salaries of from £125 to £400, with allowances, while the Chief Inspector draws £500. Government clerks draw salaries of from £120 to £400; labour agents and accountants from £400; registrars of servants, £600; magistrates from £500 a year, with house allowance; and chief magistrates, £1,000.

There are over 2,110 miles of telegraph lines in constant use, providing much work in the Telegraph Department, and there are the Public Works Department, and the Department of Agriculture with its posts of inspectors of sheep; while in the Colonial Secretary's office there are appointments varying in pay from £90 to £900; besides others too numerous to mention.

The age of retirement is sixty, although in some departments it is fifty. The service is, of course, pensionable, but every member has to contribute 8 per cent. of his pay towards the Pension Fund, together with an extra 1 per cent. to the Widows' Pension Fund.

The conditions for entering the Natal Civil Service are nearly the same as those for Cape Colony, with some slight difference in the subjects for examination, both compulsory and optional. Clerks in the Natal Civil Service receive pay from £85 to £400 a year. In addition to other appointments, there are Zulu interpreterships. Candidates for these posts must be over seventeen years of age, and on passing a preliminary examination in arithmetic, English, and Zulu become student interpreters, receiving for the year of probation a salary of £85. The Civil Service of Natal appears for some not very apparent reason more popular than that of Cape Colony, for there are always many more applicants than vacancies.

The climates of Natal and Cape Colony are, as has already been mentioned, exhilarating and health-giving, and free from the drawbacks of tropical countries, while comparing

favourably with those of our colonies within the temperate zone. The life—although many of the lesser luxuries enjoyed at home (white servants and well-washed collars, for instance) must, by reason of their expense, be foregone—is an active and pleasant one, pleasanter by far than the existence led by Civil Service clerks in London; and while sport and the benefits of country life can be enjoyed by the civil servant in South Africa, he has none of the hardships that form a certain drawback to the mounted police service.

Full particulars of the various clerical and technical appointments can be had on application to the offices of the Agents-General for the Cape Colony and for Natal respectively, both being situate in Victoria Street, Westminster, S.W.

## The Natal Police

**D**URING the last few years, when South Africa as the land of promise has come so prominently to the front, the name of "Cape Mounted Rifles" has become as familiar in our mouths as household words. Whenever the question of a boy's joining a South African Police Force is mooted, this corps is always selected as the most fitting for his energies, parents being apparently oblivious of the fact that there is another police force, and a very excellent one, in the country—one that in some respects presents superior advantages to the Cape Mounted Rifles.

The Natal Police Force contains mounted and unmounted departments, and includes all the police in the colony, with the exception of the local police in Maritzburg, Durban, Newcastle, and Ladysmith. The pay in the mounted branch is better than that given to the Cape Mounted Police, and there are also advantages in the retirement and pension scale. This force is principally recruited in the colony, and there are usually found to be sufficient applications on the spot; but when the local supply runs short men are enlisted in England, and appointments thus made are obtained through the London Agent-General for Natal, Victoria Street, Westminster, S.W. Such appointments, however, being rare, the candidate's best and certainly quickest method of obtaining one is to proceed to Natal and lay his application before the Chief Commissioner of the Police Force in Pietermaritzburg.

Candidates for admission for this Service must be single (marriage is a disqualification), and the limit of age is

between seventeen and twenty-five, although in some cases where there are special qualifications it is extended to thirty years. This is a different scale from that in the Cape Police, where the limit is thirty-five. On the other hand, the standard of height is lower in the Natal branch, five feet six inches being the minimum instead of five feet seven, and, thoughtfully considerate of horses, the regulations decide that applicants for the mounted branch must not exceed 160 pounds in weight. Here also physical qualities are all-important, and the medical examination is a severe one, while the mental examination demands intelligence, an ordinarily good (not an exceptionally high) standard of education, beside testimonials as to previous good conduct. Successful candidates are enlisted for an initial period of three years, as against two in the Cape Police, a regulation that has its advantages as well as its drawbacks, but members seem generally inclined to the opinion that the former outweigh the latter. Uniform, clothing, equipment, and a horse are not supplied free, but are granted to recruits as an advance by Government, which advance has to be repaid by stoppages in pay to the amount of £2 a month. A further sum of a few shillings is deducted monthly from each man's pay to provide for new horses in case of accident. Barracks and house accommodation are provided, but every other expense must come out of the policeman's pay.

A recruit enters the service as a second-class man, in which capacity he receives 6s. a day—not much when his expenses (2s. to 2s. 6d. for messing included) have to be found therefrom; still, it is quite possible to live upon this, and, after a year, his conduct being satisfactory, he is raised to the first class, with 1s. a day extra. A further increase of 1s. a day may also be obtained by passing an examination in Dutch, Zulu, Hindustani, or Tamil, and in a country where these varied nationalities congregate, instruction, grammatical as well as conversational, is easy to obtain. The benefits of shorthand have now been recognised by Government, and 6d. a day extra can be had by passing in either this or in telegraphy. The candidate will do well to

study these last two subjects at home before proceeding to Natal, for they will ensure quicker promotion. For a first-class man the next step is to the rank of sergeant, upon 8s. to 9s. a day, with an extra shilling after the first three years have been completed; sergeant-majors receive 10s. Above this grade comes that of officers proper, divided into sub-inspectors and inspectors, the former receiving £260 to £300, and the latter £360 to £450 a year. All promotion is made from the ranks, and goes as a rule by seniority, although efficiency and special adaptation for the vacant post are weighty considerations. The Zulu language is of great importance, and he who can speak it fluently obtains quick promotion.

After ten years' service, the policeman may retire upon a pension amounting to one quarter of his pay; after eighteen years, three-eighths; and after twenty-four years one-half. This pension is granted from a superannuation fund, to which each member must subscribe  $2\frac{1}{2}$  per cent. of his pay.

The regulations respecting the mounted branch of this Service are all applicable to the unmounted, with the exception of pay, which is one shilling a day less in the latter branch, as no forage has to be provided.

Cape Town is also provided with unmounted police constables, who are paid at the rate of from £7 10s. a month on appointment to £300 a year as inspectors, with an allowance for quarters; here marriage is not a bar to entry, and uniforms are provided by Government.

Of local colonial forces the Durban Police presents some attractions to the candidate who is above the limit of age required by the Natal Police.

Thirty-five is the limit here, and the qualifications are much the same, except that a greater height is required—five feet nine inches without shoes being the minimum. Preference is given to single men, but married men are not ineligible provided their children are limited to two. Uniform is given, and the entering pay is £11 a month.

In point of pay, position, and retiring pensions the colonial police Services are, of course, much inferior to the

Indian police Service, and the class of men from which this and other colonial police Services are recruited is a very different grade of society from those so employed in our Indian Empire. But there are other matters besides these to be taken into consideration—namely, climate and health.

The climates of the Cape and Natal are bright, dry, and invigorating, full of health-giving properties, and as different from those in which the Indian police official has to pass the greater part of his life as well can be. Though the good pay in the higher branches, together with the certain amount of luxury present in Indian life are absent, the compensations are many, and that the standard of health in our South African colonies is superior to that in India is shown by the fact that the retiring age is fixed at sixty instead of fifty-five.



## The Civil Service of Jamaica

THE lad who has relations in the West Indies, or who has the idea of going there, can, if he be not otherwise provided for, turn a good education to good account by competing for the Civil Service of Jamaica. There are annually some twenty vacancies, and of these one half are filled by nomination of the Governor of the Island, and the other half by means of an open competition. The nominated candidates are exempt from competition, but must qualify in the examination, and to them, as to the other candidates, apply the following conditions. The age of the candidate must be between 18 and 21 on the first day of October in the year in which the examination occurs. He must be a British-born subject, and must, prior to the preliminary examination, produce to the Jamaica Schools Commissioners evidence of his age, character, and good health. A medical certificate is required, and it is well that the lad should be strong and healthy. In September of each year a preliminary examination is held, the fee for which is 5s., the fee for those who qualify for the competitive examination being £1. The latter examination is held in October, and the English Civil Service Commissioners examine and report on the papers which are sent to them. The result is known in time for appointments to be made in March of the following year. The examinations are, of course, held in Jamaica; and full details can be had from the Secretary, the Jamaica Schools Commission, Jamaica, West Indies.

The subjects for examination and the maximum marks in each case are as follow :—

## PROFESSIONS FOR BOYS

|                                      | Marks. | Minimum. |
|--------------------------------------|--------|----------|
| Arithmetic, 800 } . . . . 400 . 100  |        |          |
| Addition, 100 } . . . . 400 . 100    |        |          |
| Orthography . . . . . 400 . 100      |        |          |
| Handwriting . . . . . 400 . 100      |        |          |
| Copying Manuscript . . . . 200 . 40  |        |          |
| English Composition . . . . 200 . 40 |        |          |
| Geography . . . . . 200 . 40         |        |          |
| Indexing . . . . . 200 . 40          |        |          |
| Digest of Returns . . . . . 200 . 40 |        |          |
| English History . . . . . 200 . 40   |        |          |
| Book-keeping . . . . . 200 . 40      |        |          |
| Latin . . . . . 300 . 60             |        |          |
| French . . . . . 300 . 60            |        |          |
| Euclid and Algebra . . . . 300 . 60  |        |          |
| <hr/>                                |        |          |
| Total                                | 3,500  |          |

The subjects are identical with those of the Second Division of the Civil Service of England, with the addition of Latin, French, Euclid, and Algebra, so that a well-educated boy should have an excellent chance in this almost unknown service. The minimum marks are those which the nominated candidates must reach, and which in the case of the open competition are deducted from the marks obtained. Seventy per cent. of marks without deductions, or fifty per cent. after deductions, is likely to bring a high place, which compares very well with the more severe test of the English Civil Service.

Of the subjects above-mentioned, the first five are most emphasized, and candidates who do not obtain the minimum in these are not appointed. Also no candidate is appointed who has to his credit, after deduction of the minimum, less than 600 marks.

The standard of education in the Island is by no means as high as in England, so that any one who has relatives there, and who has been forward in the above subjects of study, may do well to consider the Jamaica Civil Service. The climate of the West Indies is splendid, and the average

temperature is that of the English summer, which has not been so consistently present in England of late years. The cost of a passage to Jamaica is from £16 to £20, according to berth position.

The Jamaica Civil Service is divided into two classes: the clerical and the collecting staff. On appointment, the Civil servant find himself a third-class clerk, with an initial salary of £80, and rising by annual increments of £5 to £100. The second-class clerks and first-class clerks in the chief offices rise from £100 by £10 annually to £200, and from £200 by £10 annually to £300 respectively; whilst the first-class clerks at out-stations rise from £100 by £8 annually to £140. Then begins the two classes of assistant collectors, chosen from the out-station clerks, and starting at £180, with a yearly rise of £10 to £200, which is the maximum of the second class. The first-class assistant collector begins with £250, and rises by £10 to £300. Likewise are there two classes of collectors, the second being £350 by £20 to £450, and the first £450 by £20 to £550. The duties of the collectors are mainly outdoor, and necessitate the use of horses, for which an allowance is made. £50 is allowed for each horse kept and used, and when more than one is needed, this is increased to £100, which must cover all travelling expenditure. The choice of indoor or outdoor life is one which must attract many; and, needless to say, there is the certain prospect of a pension, the terms being identical with those of the English Civil Service. The rate of increase is slow, but there are compensations in the climate, in the relatively cheaper standard of living, and in the leave, which is at the rate of three months on full pay in every two years. Leave on half pay is granted at the rate of two months for every complete year of service.

The Jamaica Civil Service has many attractions, and the relatively lower standard for success is an inducement to those who, having a likelihood of success in the examination, are glad to have the prospect of serving, not in smoky London, but in the beautiful climate of the semi-tropical West Indies.

# Openings in Western Australia

## I.—FARMING

**O**F late years much attention has been paid to this our youngest colony. The booming of its gold mines and the highly-coloured pictures drawn by interested agents have caused something like an exodus to the country, which to vivid imaginations appeared an El Dorado, second only to the Transvaal in the matter of accumulating fortunes in a miraculously short time. The inevitable result followed; shiploads of unskilled workers and well-educated loafers, who were incapable of doing a solid day's work, were transported thither by charitable institutions and relatives and to-day the streets of the principal cities, especially Perth, together with the goldfields, are thronged by thousands of unemployed eagerly waiting to snatch up the smallest job that shall bring the prospect of bread and cheese, and a shanty over their heads. "The place," says an authority speaking of the colony in general, "is run by unscrupulous land boomers, who are using every means in their power to draw population so that they can make fat profits out of the land. Hundreds of miners are arriving at Perth seeking work. The labour market is glutted, and the streets of Perth and Fremantle are teeming with unemployed." And to this dismal portrait he adds the significant remark: "In West Australia a man may starve, and no one will hold out a helping hand to him."

A woful condition of affairs, but it only proves a fact that parents in England are slow to realize; if a boy lacks the qualities necessary to ensure success at home, he will not

gain those qualities by a sea voyage of a few thousand miles, and the ne'er-do-well or incapable will not improve with deportation, although his friends may greatly benefit thereby. In cases, however, where a boy delights in an outdoor life and manual labour rather than brain work, where his talents lie in his hands rather than in his head, he is obviously more fitted for a colonial life than an English profession, and for such the colonies—even Western Australia, its unemployed contingent notwithstanding—offer greater opportunities than at home. In the first place there is a distinct opening for farmers in agricultural, dairy, and mixed farming, besides fruit-growing, to which the conditions of soil and climate are especially adapted. The climate of the colony is, generally speaking, a healthy one, but there is necessarily a wide range of temperature. The south-western part is the healthiest and most temperate, and is also comparatively free from the periodical floods and droughts of the northern and central parts of the colony. The sanitary condition of the towns is for the most part in a disgraceful state, which accounts for the prevalence of typhoid fever, but the farmer is not affected by this evil. Given a previous knowledge of farming and a small capital, from £200 to £600, a boy should be successful in the business, no matter what branch is taken up; but before land is bought a year's experience of colonial methods on some one else's farm is of the greatest possible value, preventing the loss of crops and capital. Free farms of not more than 160 acres are granted to every one of eighteen and upwards who fulfils certain conditions, such as residing on the land for six months in every year for five years, erecting a house, and spending £30 in clearing and planting a certain amount of orchard or vineyard. In seven years the farm becomes his own, or sooner if in addition to fulfilling these requirements he pays 15s. an acre. Other land may be acquired for from 10s. to £1 an acre from the Crown, and in addition to this, railway companies sell lands in the proximity of their lines at rates ranging from 10s. to 50s. an acre. If the would-be farmer is in a hurry to make profits, and has sufficient capital, he will turn his attention to improved

lands, which vary from £2 to £4 and upwards in price, according to the condition of soil and the locality. Besides the cost of land, implements, and the farmer's keep before returns come in, a certain amount of working capital is required, and this varies in general farming from £1 to £2 an acre. That there is a large opening in the south of Western Australia for farming of all descriptions is seen by the fact that the colony has to import considerable quantities of flour, oats, wheat, and potatoes from the eastern colonies, and with the influx of emigrants the amount increases. In dairy farming also there is a wide opening, for an incredibly large amount of ham, bacon, tongue, cheese, and butter is imported yearly; but of all farming, vine-growing may be considered, perhaps, the most profitable business, albeit it is a slow one, for vines take four years to attain their maturity, and till this is reached the farmer must have sufficient capital to live upon, so that no one with a smaller capital than £600 should go in for this form of farming. Wine-making is an industry that is steadily increasing in the colony; and although at present there is room for improvement in its manufacture, there is no reason why Western Australia should not compete successfully with other Australian and Californian brands. The climate and soil are indeed specially suited to grape-growing.

Various fruits also offer an opening, as fruit is dear to buy, and a great quantity of jams and jellies is imported every year. The reason that more attention has not been paid to this branch of farming is to be found in the fact that fruit-growing, like vine-growing, is a slow process, and the necessary capital for three or four years' maintenance has to be found before a vineyard, orchard, or fruit garden can be undertaken. The expenses of such an undertaking would be, roughly speaking, these: £1 an acre for the land (unimproved); £3 to £4 an acre for clearing and planting; buildings and fences, £50; tools, £20; plants, £15; and furniture and household necessities from £10 upwards. A horse and cart must be kept, and a very fair, sturdy cob can be purchased for £15 to £20. Living expenses for the farmer and quas, allowing for a certain amount of new clothes, would

be from £70 to £80 a year. Living is by no means cheap in Western Australia, prices for everything being considerably in advance of those obtaining in other parts of Australia. House rent in the towns is high, but, as in the matter of sanitation, this does not affect the farmer. The best situation for fruit and vegetable farms is in the south of the colony in the neighbourhood of Albany, where large steamers call continually, providing a ready market for produce of this kind.

The cost of the passage out varies widely. From Liverpool cheap lines of steamers run, *via* Singapore, giving intermediate passages for £25. A very comfortable passage may be had second class by P. and O. and Orient Line boats for £35 to £40. In the colony railways charge 1½d. per mile for second-class passengers, there being no third-class, and these second-class carriages are very inferior to our third at home, although the first-class are fairly comfortable. A large outfit is not necessary—strong serviceable clothes, with plenty of flannel shirts, are the principal requisites, implements of all kinds being procured to better advantage in the colony. Perth, the capital, is possessed of an Agricultural Bureau, and to this the man who wishes to gain practical experience upon a farm before taking up land of his own should apply.

## II.—GENERAL

Besides farming and the gold fields, Western Australia does not offer many inducements as a land in which to seek a living; the colony has not increased with rapidity, nor shown signs of the prosperity that the various mining companies and land agents prophesied, nor have the grants of free land by the Government been accepted with the avidity expected by the authorities. Western Australia cannot be considered a progressive colony; "everything is fifty years behind the times," wrote a resident in Perth the other day, and in many matters, notably in sanitation, a century would be nearer the mark. On the railways, in the police force, and as land surveyors, there are some openings for young

men, but they are not numerous, nor, as will be shown, highly paid. The railways of Western Australia belong to the Government and to companies, and candidates for employment in the former must pass an examination, bring testimonials of character, and be able to produce a medical certificate showing that their general health is good, and that they do not suffer from any physical defects. In the clerical and traffic branches cadets commence at a wage of £30 a year, from which they rise to the position of clerks, earning salaries of £70 to £150, and to that of station-masters, with £250 a year and quarters. Assistant inspectors, besides an annual travelling allowance of £1 a week, earn from £150 to £175 a year, and inspectors from £300 to £400. With the increase of the colony the demand for railway employees will also increase, and already new lines are being prospected, bringing extra openings in their wake, so that the future as regards employment in the country will be more hopeful than in the past.

The scale of pay in the West Australian police service will appear to compare favourably with that of some of the Eastern colonies, but the difference in the price of living must not be forgotten, and when this is duly considered, it will be seen that appointments in the older colonies, although smaller in pay, are of greater value than those in the new. In spite of this, however, there is always a large number of candidates for every vacant post. The police force is divided into two sections, mounted and foot, and the former is recruited from the latter. Marriage is no drawback to the entry of this service, nor is the number of children considered, but Government rules require that an applicant's family as well as himself should be well conducted. The Chief Commissioner of Police in Perth allots the vacant appointments, and to him candidates must apply. Robust health, good physique and eyesight are required, a fair general education, and the age must not exceed forty. Constables receive from 6*s.* 6*d.* to 7*s.* 6*d.* a day, with uniform and a lodging allowance varying from £15 to £24; corporals, 8*s.* 6*d.* a day, with house allowance, and sergeants, 9*s.* to 10*s.* a day. Sub-inspectors receive £200 to £250, with a house



allowance of £30, and inspectors, £260 to £325, with the same allowance. In the mounted force troopers receive £150 a year, with a ration allowance.

The highest position in the department is that of the Commissioner, who draws a salary of £600 a year. In some districts, such as Kimberley, where the living expenses are much higher than in the southern part of the colony, extra lodging and ration allowances are given. The life is a hard one, especially for the mounted branch, for the districts under charge of the different sub-inspectors are large, covering wide areas of desert land to be ridden under the burning tropical sun. The service, however, offers inducements to men of ability, for promotion goes by special fitness and does not tarry for seniority.

Engineering is certain to grow with the development of the gold mines and local manufactures, whilst the introduction of electricity means an increase in the number of qualified men able to take charge of electrical installations, both for lighting and for trade and mining purposes. Practical professional men, whose work is suited to the local circumstances, will find many good openings in Western Australia. The hard-wood trade, which is growing steadily, will give employment to those acquainted with machinery.

Land-surveying offers a few openings in the colony, but, although the pay cannot be considered good, applicants invariably outnumber the appointments. The necessary licence for practising in the colony is obtained after successfully passing an examination before the Land Surveyors' Licensing Board in Perth. Candidates for this examination must be at least twenty-one years of age, and have passed a matriculation examination at some English or Australian University, and also have been articled to or employed by a land surveyor for a period of not less than three years. In respect to clerks' work and professions, such as the legal and medical, the colony is very overstocked, and holds out no advantages to members of such professions, who, having qualified at home, are seeking for new lands in which to practise. Since the cost of living, as has been said, is great, it is unwise for any one to start for the colony without

sufficient means for at least a year's support. Living is not cheap in the southern parts of Western Australia, but in the mining districts and northern cities expenses increase enormously, and even in the southern districts emigrants from the eastern colonies complain that £5 on the western side of the continent is not equivalent to £2 in the older colonies. Under these conditions store-keepers thrive, and many men who have started with sufficient capital to lay in a small stock of stores and convey them up country have realized very respectable fortunes thereby. Carriers' work, too—that of conveying parcels for the miners from distant towns—is another industry which, from a very humble beginning, has led to highly satisfactory developments.

## Farming in Canada


“ **I** F a man is not eager to become rich, but will be satisfied to earn a competence to bring up a family, we have here in the Province of Quebec a beautiful, fertile country, a fine, bracing climate, so that men with simple country tastes may prosper and be happy. But there is an indispensable pre-requisite to all this—viz., that the young farmer shall have learned, before he spends his money, and before he has a farm of his own, the principles of Canadian farming; and yet many have failed on the very threshold of success because they have fallen into the hands of people who were more concerned to take from them a premium than to teach them anything. In order to become a successful Canadian farmer a young man must be steady and earnest and ready to work, indeed to work hard, seeing that here, in the Province of Quebec, we have no farmers acting merely as employers of labour, directing their men and doing nothing with their own hands. A man in Canada is taken for what he is, and he does not lose caste because he chooses with his own hands to do hard work.” So says a very competent authority, the Bishop of Quebec, himself an Englishman. In his letter he has touched upon the principal points of Canadian farming, and the condition of farmers all through the Dominion bears out his words. “Farming in this country,” says the local Press, “has greater possibilities in the attainment of prosperity by the industrious settler than any under the sun”; and although this statement may be slightly discounted, the number of prosperous farmers in Canada is very large, and parents and guardians may very

profitably turn their attention to the profession of farming for their children and wards.

But one word of warning must be given. It is a great mistake to look upon Canada as a land wherein ne'er-dowells will thrive. If a boy, owing to inability or unsteadiness, proves a failure at home, it is pretty certain that he will not be a success across the ocean.

To the boy who takes an interest in country life and pursuits, who is not afraid of hard manual labour, and who is also a sportsman, Canadian farming offers good and attractive prospects, together with a healthy life and climate. The first step to be taken is, of course, to become qualified, and it is the omission of this that causes the disastrous failures we so often hear of. An apprenticeship must be served to every trade, and farming is no exception; although, from the way in which many people talk, one would think that the knowledge of this craft was an instinct implanted by nature, and that farmers, like poets, were born, not made. As a matter of fact, there is scarcely any profession in which special training is more needed.

The apprenticeship may be served either at home or in the Dominion, although for many reasons the latter place is preferable, many of the methods of Canadian farming differing materially from those in vogue at home. However, should home training be preferred, there are excellent agricultural colleges at Cirencester, Downton, Tamworth, and near Carlisle, of which details will be found in Part I. "Agriculture." The British and Colonial Training College, Hollesley Bay, Suffolk, gives special instruction in the needs of the various colonies. If local training be adopted, there is an excellent model farm at Compton, Quebec, where, as vacancies occur, free tuition is given by Government. At the present time there are three such vacancies, and applicants should apply to the principal, Mr. J. M. Le Moyne, for particulars. There are also agricultural colleges and schools at Guelph, Qu'Appelle, and Truro, Nova Scotia. Another method employed is to place boys as pupils with Canadian farmers, but this has given rise to so much abuse that the very greatest caution should be exercised before making a



choice. Not long ago a high premium was paid by a gentleman who sent his son as pupil to a certain farmer; the boy was not a good correspondent, and months frequently elapsed between his home letters, but the quarterly premiums were sent and received with the greatest regularity. Becoming at last uneasy about his son's prolonged silence, the father requested a friend, passing through Canada, to visit his boy, and this visit resulted in the discovery that the boy had died several months previously.

Many conflicting opinions exist as to the premium system; but the Canadian Government considers it unnecessary and in all cases a waste of money, and advises settlers either to hire themselves as farm labourers in return for their board and lodging or to qualify at one of the before-mentioned colleges.

There are, however, many conscientious and reliable men who receive pupils, and as regards Quebec the Bishop has kindly undertaken to enter into correspondence with parents concerning farmers recommended by him.

Many old and successful settlers also contend that no premium should be paid at all, and that a boy able and willing to work will be worth board and lodging to any farmer, even during his first year in the country. Provided with a capital of £150 to £200, exclusive of expenses for voyage and outfit, a young fellow on landing in Canada will do well to obtain work (readily found) with some farmer in return for a home during the first year. In this way he will be initiated into the methods of farming, and will have time to look about him and become cognisant of colonial ways and habits before embarking on the management of land on his own account. When he is thoroughly qualified, he can apply for a free grant of 160 acres of land, which is to be had for the asking and a ten-dollar fee. This land is, of course, unbroken, and the expenses of ploughing, sowing, harvesting, and so forth, his own labour included, will be something between £2 4s. and £2 16s. an acre. His expenses of stocking a small farm will run something in this way: Food for the first year, £50; yoke of oxen, £37; cow, £7; waggon, £16; plough and harrow, £8; implements, £5;

stove and utensils, £5; furniture, £12; sundries, £20. Total, £160. This sum should carry him over the first year, when returns will begin to come in. Mixed farming is by far the most profitable. If the young fellow has a larger capital, he can, of course, take up a cleared and improved farm, which will cost him from £4 an acre upwards, and land beyond the Government grant can be purchased at from 3 dols. to 5 dols. an acre. The best time to arrive in Canada is April or May.

It must not be imagined that the life is an easy one; it is one of real hard work, the work of an English farm labourer under better conditions and a healthier climate; certainly harder than in England, as help in times of pressing work is either altogether unattainable or highly priced. The youth must be prepared to "do" for himself, and add to the accomplishments of the farmer those of tailor, cook, and laundress—at least, in the early days of his career, before he can afford a partner for life, and when his grant of land is far removed from the more populated districts.

But the life, with its accompanying sports, is a fascinating one, and the labour is well repaid by results. The soil is the richest in the world, and the average crop reaches thirty-two bushels to an acre, while with all the latest scientific methods in England the average is only twenty-eight bushels; potatoes, hops, flax and varied cereals thrive equally well, while fruits, such as strawberries, raspberries, melons, pears, and apples, flourish. Although the mercury in the thermometer sinks very low during winter, the dry atmosphere prevents the intense cold from being keenly felt: in Manitoba the usual depth of snow is only eighteen inches, and the cattle graze out all the year round. The life, though solitary compared with that in the old country, has its own society and attractions; neighbours are all the more appreciated because they are few; and relations with them are all the more friendly because the opportunities of meeting are limited, while in times of emergency and trouble no one is more hospitable or ready to help his neighbour than the Canadian farmer.

## Fruit-Farming in California

**I**N no other country, perhaps, on the face of the earth are opinions respecting eligibility for this profession more divided than in California. In the form of letters to newspapers settlers give totally opposite accounts of their careers, some painting a vivid picture of the charming life, magnificent climate, and high percentage realized by fruit-growers; while others, to put it very mildly, make out that Californian fruit-farming is the least desirable profession under the sun, entailing killing work, in unhealthy atmospheric conditions, carried on at a distinct loss, and end their letters by solemnly warning would-be settlers to turn their attention elsewhere. Probably the truth of the matter is to be found about half-way between these two views, and for suitable men openings in Californian fruit-culture certainly exist, although competition and overloading special markets have reduced profits considerably.

The different views taken of the climatic conditions may be accounted for by the fact that two distinctly opposite climates exist. There is that of the sea, with humid, equable temperature, and cold, damp winds, where the thermometer never rises to any great height; and that of the inland country, which is hot and exceedingly dry—beneficial conditions for those whose lungs and throat cannot stand the fog and damp of the British Isles. Although healthy in the main, certain malarious districts exist, and this condition, as in certain parts of India, is increased by reason of the system of irrigation by open ditches. Although sheep-farming and wheat-growing are carried on to some extent in California, it is to fruit-growing that the attention of the

would-be settlers is turned ; the kinds grown are widely diverse, varying with the part of the country in which farming is carried on. In point of number of acres under cultivation raisins come first, next oranges, and then peaches, prunes, apricots, grapes, pears, apples, walnuts, almonds, and other fruits too numerous to mention. At the present time orange-growing appears to be in favour, although owing to various contingencies the business is hazardous and the slightest suspicion of frost is utterly destructive to this fruit. Pome-loes and lemons also are among the most important and profitable of fruits, and are shipped in increasing quantities. Sugar beet and tobacco are also largely grown ; and the extent of the former industry has increased since the imposition of countervailing duties on European bounty fed sugar from France, Germany and Austria. This part of the country is also the largest honey-producing area in the United States. Lately, also, much attention has been turned to grape-growing, for no other country in the world produces so much wine to the acre.

Having decided to try his luck across the ocean, and being prepared for really hard work and possessed of the amount of caution and business-like habits requisite to success, the boy will have to consider the best method of entering the business ; and here a word of warning is necessary, one that cannot be too often repeated. Have nothing to do with land agencies and companies, charm they never so wisely. The premium system is described in glowing advertisements from time to time in various papers. "A delightful outdoor life, plenty of sport and amusement, combined with home comforts, thorough instruction in horticulture, together with desirable permanencies found as soon as proficiency is attained." So run these misleading baits ; and the premium, often found with difficulty and at the expense of much self-denial, is paid down, and the boy is shipped to his destination in the certain hope that he is set up for life. Upon his arrival he finds things a trifle less brilliant than they were painted ; the accommodation is poor and rough, the work is continual and hard, leaving no time for the much-advertised sport and amusement, and at the end of his probation he is



turned adrift, and is again on his parents' hands, till some other opening, involving a fresh outlay of capital, has been discovered. This is the dark side of the premium system, a state of things which one may expect unless the greatest care is exercised in placing pupils. There is, however, another side to it, one that is not unnaturally emphasized by ranch owners, who urge in favour of the premium system that as the novice knows nothing about his work he is certainly not worth his keep, while an extra person in the house entails much extra labour on the rancher's wife, who rarely keeps a servant. It is therefore quite just, they say, that a premium should be paid for learning the business.

If the boy has friends in the country, the matter is easily settled; but if not, the question of qualifying is solved by the fact that in nearly every district in California labour is wanted, and that even the unskilled labourer is worthy of his hire. To quote an acknowledged authority, "the most successful English emigrants are those who come here without any capital, and who work in subordinate positions until they have saved sufficient capital to purchase land or go into business on their own account." The wages paid to farm hands in various parts of the state differ considerably, as does also the demand, which in some places is steady, and in others exists only during certain seasons of the year. In some districts thirty dollars a month with board and lodging are obtained, and in others nine dollars a week without board and lodging. Often new comers are expected to take considerably less than the usual rate of wages; the cost of board and lodging alone varies from three dollars a week to thirty dollars a month.

Having gained his experience as a farm hand, the emigrant's next step towards becoming a fruit-farmer is to take up land on his own account, and this at first should be rented. Formerly much capital was wasted by men rashly buying farms without due investigation or any knowledge of the business, and the result was very naturally a hopeless failure. If land be rented for a few years before it is acquired, the fruit-farmer will have ample opportunity for discovering whether or not he has made a mistake in his choice of a

vocation; and if the prospects do not seem sufficiently good to justify a continuance, he can turn to another business without having an estate upon his hands. The man with capital will probably rent an improved farm, with trees in full bearing, already yielding profits; the price per acre for such is, of course, widely different according to the situation and the proximity of water. From fifty to three hundred dollars an acre is the large margin for cultivated land, therefore it will be seen that a substantial capital is needed to take over a farm in working order. The slower and less expensive way is to take up raw ground, the price for which varies as greatly as for the cultivated, ranging from two hundred and fifty dollars up to four hundred, the higher prices being charged for Riverside land, the chief centre of the orange industry. Though cheaper this method is tedious, for five years have to pass before the orange trees begin to bear. The outlay is all in the first year, when the trees have to be bought and the ground prepared, the succeeding years requiring little expenditure beyond the farmer's own maintenance. This should, moreover, not be much, for California is a cheap country to live in if necessities only are used. For the sum of £50 a year the farmer should be able to maintain himself on good, plain, wholesome fare, but everything approaching the nature of a luxury is far dearer than at home. For the sum of fifty dollars a good cabin can be put up, sufficient for the needs of the grower till returns begin to come in.

Although the work is hard, life has its lighter social side, and where Englishmen are congregated there is a degree of companionship, and some of the sport which figures so largely in the agents' advertisements. English clubs exist, where memories of the old country, with its narrow limits and foggy atmosphere, are kept alive; for, as with the Anglo-Indian, the Anglo-African and the Anglo-Australian, so with the Californian fruit-farmer, the land of his sojourn, be it ever so desirable, is never "home."

## Fruit-Farming in the Channel Isles

**F**ARMING in England has been for years in a sorry plight. Times do not improve, foreign competition increases, and the bankruptcy court tells a doleful story of the agriculturist and the unavailing efforts made to keep his head above water. Although prospects in Australia, America, and other remote countries are fair, there are many parents who dread the prospects of their son's departure for a life in these lands and the breaking up of old associations which it entails. Once settled in far-off lands old ties are severed, and the opportunities of meeting are few and far between.

From these objections the Channel Isles are free, being only nine hours' journey from London, while the life led therein is essentially English, and the delightful climate prevents many of the drawbacks attendant on farming in the Old Country. That the profession of fruit-farming is very crowded no one will deny, except perhaps the unscrupulous land-agents, who after the manner of their kind hold out dazzling prospects of the pleasant, easy life and the comfortable fortunes to be realized in fruit-farming on a capital of some £400 or £500. These good old days, if they ever existed, have long since departed. At the present time the resources of land are being taxed to their utmost, and every one who can buy or rent literally a few feet of ground raises fruit for the English market. This is especially noticeable in Guernsey, which island is rapidly becoming one mass of glasshouses. But, though the palmy days have departed, there is still an opening in fruit-farming for those possessed of capital, who are not eager for a very large percentage on

their outlay. In Jersey farmers say that a profit of 20 per cent. is still to be made upon an outlay of £2,000 and upwards, and from 12 to 15 per cent. in Guernsey.

That one requires little or no experience to become a successful farmer is a widespread fallacy, which if acted upon leads to the most lamentable consequences. The parent, therefore, to whom this seems a desirable profession should arrange for his son to learn the manner of farming required; and as this, of course, cannot be studied in England, the boy must go to the spot.

Many fruit-farmers (indeed, most of the larger ones) take pupils, and, although due caution must be exercised before placing a boy, it is not a difficult matter to find a house where he will receive really careful instruction; as a preliminary an advertisement in the local papers will elicit information.

This is undoubtedly the best course to pursue, but there are others; older people, for instance, who, having tried farming in some other part of the world, have given it up, and wish to start in the new country without losing time in serving an apprenticeship, have commenced at once on their own account. Indeed, many of the most successful farmers on the island have begun in this way, and though at first they had in a great measure to pay for their experience, yet where operations were undertaken on a small scale there was little harm done.


There are two courses open to the would-be farmer who wishes to start at once upon his own account. He can either take land and erect his own glasshouses and plant his own vines, or he can take over a farm with houses ready built, vines in full bearing, and everything in working order. The first is certainly the cheaper method, but also the more tedious; vines do not attain their maturity till the fourth year, while standard fruits are slow growing; and until they begin to bear he has to rely upon strawberries, tomatoes, and, last but not least, potatoes for his income. In many ways the slow method is the more satisfactory, for before he has a full stock to dispose of the farmer has learnt by experience how to sell it to the best advantage. Small

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properties ready for fruit-growing may be purchased from £1,000 upwards, the rent of greenhouse property being about 10 per cent. on its value. In Guernsey, land for farming is about £8 an acre to rent, and to buy it costs £80 to £160 per vergee (2½ vergées to the acre), according to its position and proximity to town. In Jersey the cost of farm land is higher, rental from £5 to £10 per vergee. Taxes vary in the different parishes, but a usual rate in Jersey is one-third on the rental value. The intending purchaser must be exceedingly careful in the choice of a situation, for if fruit is to grow prolifically the south or west of the island must be chosen, and the site should be sheltered from north-east winds.

And here a word of warning concerning partnerships is necessary. These should be given a wide berth; unless the prospective partners are personal friends, or are well known to personal friends, it is far wiser to have nothing to do with them.

After the farm has been selected, bought, or rented, the working expenses are great, if the business is to be a paying one. If the farm is any distance from town, a horse and cart will be required. Horse keep is certainly no cheaper than at home, forage being imported. Grapes are profitable during the early part of the year only; directly strawberries come into the market their price goes down. But if they can be ready early they are the best paying fruit. Tomatoes come next, but their price has sadly diminished during the last few years, and they have many enemies, stripe disease being the principal. Of vegetables, potatoes pay by far the best, and two crops a year are regularly raised, but the soil requires frequent dressing, being devoid of lime and mineral salts; an excellent remedy for this is found in the *vraik* gathered at low tide upon the seashore, and largely used by the Jersey farmers.

In order to make a profit it must be understood that the would-be farmer must work hard with his own hands. Simple directing and overseeing will not pay; he must dig, plant, and sow himself; rise early and stoke the furnaces; pick and pack the fruit,  for its transport to

market. A farm labourer's wages are 2s. 6d. a day, those of a gardener 3s. 6d. to 4s. In erecting glasshouses (which cost a shilling per square foot) a valuable hint is to have the panes of an ordinary stock size, otherwise there is a delay about repairing accidents, which frequently proves fatal to the fruit. Perhaps one of the most important tips to fruit-farmers is to beware of agents; dealings with them are often highly unsatisfactory, besides swallowing a large amount of profit. The farmer can ill afford to pay a middleman; he should seek out markets for himself and sell direct to the consumer or retail dealer. Covent Garden, of course, is one of the principal markets for Channel Island fruit. But large towns such as Manchester and Birmingham offer good markets. The whole art of fruit-farming consists in having your goods ready for market before your neighbour, and to attain this a large amount of fuel is necessary. Coal costs the same as in London. The prospects of fruit-farming are not likely to improve. Every year brings increased competition, as new colonies and distant countries send their fruits to English markets, and the growing use of canned goods is a serious rival to fresh fruit.

Cultivators within the last few years have turned their attention to growing bulbs and roses, and in time may rival the Scilly Isles in the spring flower trade, which appears to pay better than fruit. As to the choice of islands, Jersey, by reason of its situation and formation, is more favourable to farming than Guernsey, which contains much high tableland exposed to bleak winds; also living is cheaper in the first-named island.

## Gold Assaying and Mine-Managing

**G**OLD assaying proper, as a profession by itself, and uncombined with either mine managing or engineering, does not hold out many inducements in either pay or position for young men. A livelihood and a modest competence are attained therein, it is true, but large salaries do not fall to the lot of the man who is an assayer and nothing more. Combined, however, with one of the above-mentioned professions, the knowledge is exceedingly valuable, and is a certain aid in attaining to the highest and most important posts given to engineers and mine managers, and therefore parents contemplating either of these occupations for their sons should see that a thorough knowledge of gold assaying forms part of the curriculum.

For the knowledge of gold assaying alone, the pupil's best course is to study for a time in the laboratory of some qualified metallurgist and assayer, and, given fair ability and a previous knowledge of practical and theoretical chemistry, a period of three months should be sufficient to make him proficient in determining the amount of precious metal to be found in any given ore, and qualify him for the position of ordinary assayer for gold upon a mine, or for a prospector or camp assayer. In order to qualify as an assayer in other minerals, and to be able to determine the amount of silver, copper, iron, arsenic, or sulphur, a much longer period is required, and a total course of nine months' study is not too much to devote to this.

In the ordinary course of nature a gold assayer's profession takes him abroad, gold as yet not having been found in Great Britain in sufficient quantities to pay for the working, and

the man who follows this profession will find his lot cast in the Colonies, in Africa, or the Far East, the present location of the most important gold mines. As a mining centre the neighbourhood of Johannesburg offers a large field, although reports at present say that the market is rather overcrowded; still, a thoroughly competent assayer will probably soon find employment there, as a large proportion of men on the spot belong to that hopeless class of half-fledged professionals possessed of that smattering of knowledge which is never so dangerous as when its owner relies upon it to help him in his career. A usual scale of pay in Johannesburg for gold assayers is £250 per annum, but in mining districts the pay depends upon the cost of living, increasing with the price of necessities. In Australia, America, and in Siam also there are openings in this profession, though the salaries are not large. Klondyke, with its store of riches, offers a new field, and one that promises to be highly remunerative to gold assayers, and the formation of companies to work the land brings the prospect of numerous appointments to the skilled in this profession. The development of the mineral wealth of Rhodesia goes on apace, and so far as can be seen, the assayer and the mine manager will soon be needed in considerable numbers. Government appointments are better paid, but they require men with other qualifications than the knowledge of gold assaying pure and simple. As to the capacity needed for gold assayer's work, a large amount of talent is required; accuracy and extreme neatness are indispensable, and, as in most (though not all) professions, a certain amount of common-sense is necessary.

The work is most arduous, being mainly furnace work, which, of course, becomes trying in hot climates. But the life of the ordinary camp assayer is a rough one, and is cast for the most part among men who are certainly uncut diamonds, and have no hesitation in calling a spade by its proper name (to say nothing of qualifying adjectives). The food is coarse, of the plainest, and highly priced, while the water supply is often insufficient, and its expense reduces its use to a minimum. Refining influences are conspicuous by their absence, and from the weather, intense heat and



tropical rain, there is little protection. In the older mining settlements, towards which civilization has gradually crept, these drawbacks are greatly lessened or completely done away with; but it is to the newly opened mines that the young assayer will naturally turn his steps, for these offer the greatest openings.

These are briefly the prospects of gold assaying alone; but, as has been said, the combination of mine managing or mechanical engineering puts the profession on a totally different footing, and offers the chance of a very considerable income to men possessed of sufficient of what is commonly known as "business capacity" to combine with their knowledge. The ways in which this necessary knowledge may be acquired are varied. In the first place, the candidate can enter the Royal School of Mines at South Kensington, where, after a three years' training, he may gain an Associateship of the Royal School of Mines in metallurgy or mining, or both, which will materially help him in his career. The training occupies three years, and for the first two years the fees amount to £75, and they vary from £30 to £40 for the third. Before entering for the Associateship, however, it is necessary that the pupil should obtain a pass in the elementary stages of mathematics, mechanics, chemistry, and physics at the May examination of the Department of Science and Art, or can prove that he has passed the examinations of other recognised institutions. This is the most expensive way of qualifying; in addition to the fees of the School of Mines and for learning gold assaying, there is the pupil's board and lodging for three years. A second way, and an excellent one, which, if possible, should be combined with the theoretical training, is to obtain work under a mine manager in some Welsh or English mine. A large amount of practical knowledge is so gained, and, although no salary is given and a year or two is spent in this manner, the testimonials gained thereby are valuable when work is sought abroad. A third, and certainly the cheapest way, is to go abroad as a simple assayer, and in that capacity to obtain all possible insight into the working of mines, and so qualify as a mine manager, being thus enabled to pass the

examinations for first-class certificates of competency for this position which are required in certain colonies. For these first-class certificates the knowledge of ore dressing, sampling, mine surveying, mining geology, surface work, book-keeping, and accounts is required, together with a thorough acquaintance with machinery, the construction of shafts, ventilation, drainage, the composition of gases, construction of dams, blasting, and a mass of practical detail, obtainable only by years of actual experience upon a mine.

The salaries received by general managers of mines vary widely, and in this matter probably higher pay is given in the Transvaal and in Siam than anywhere else. By their side the sums obtainable in America, Australia, New Zealand, and Tasmania sink into insignificance. In the last-named places and in the eastern colonies of Australia a general manager receives from £3 to £10 a week, the average being £6, and a manager from £3 to £5. In Western Australia the salaries are considerably higher; but so also is the cost of living, although there is more opening there than in the older colonies. In Johannesburg the salaries range from £2000 a year up to £5,000, and these rates are also obtainable in Siam.

## Tea Planting

**T**HIS is the age of competitive examinations, and year by year the standard of knowledge required to pass them successfully becomes higher. They are the door through which most professions are entered, and the tendency is to introduce them into many where formerly totally different methods prevailed. Year by year it becomes harder to provide for boys who have no taste for brainwork, and who, although in full possession of their faculties, cannot attain the high standard of learning wherewith they must now be fortified to pass even the simplest of tests.

In England itself there are very few openings in which head-work is not required; India and the colonies offer a larger field, which unluckily is daily becoming less and less. In most colonies such work is of an arduous nature, only fitted to be undertaken by the most robust, who have to work harder than day-labourers at home; but in the East, where the menial work is done by natives, there is less toil, combined with a greater degree of comfort, and health, although an important point, need not be of the powerful order which is imperative for the settler "out West" or in the newer settlements of Australia.

Of openings in the East, tea planting perhaps offers the greatest inducements and best prospects to boys who like an outdoor life and cannot pass the examinations necessary for appointments in Government service. "But isn't the business terribly overcrowded?" parents ask. Of course it is, but so is every other desirable profession under the sun. Planters (who do not at the moment require pupils) will tell you that it is terribly so, and that the prospects of

tea are distinctly bad : but this statement must be taken with a grain of salt ; it is only comparative ; nine men out of ten will assert that their own particular profession is in the most hopeless state of all. The prospects of a successful career as tea planter are, it must be allowed, not very good if the boy has to make his way on his merits alone, unbacked by capital. In this case he will rarely attain a greater eminence than the position of manager (though this is not to be despised) ; but if, after his period of probation, when he has thoroughly mastered the intricacies of tea planting, he can command a sum to invest in a small estate or to buy a partnership, the case is completely altered. Statistics tell us that the consumption of tea, despite doctors, is greatly on the increase, and although planters no longer amass the fortunes of former days, a very fair competence may still be made in their trade, and a very comfortable life may be led. Most planters take pupils, thereby adding a considerable sum to their incomes, and at present this is the only school in which the would-be planter can graduate. Advertisements from planters requiring pupils may frequently be seen in the *Field* and the principal Anglo-Indian papers ; but it is scarcely necessary to add that the greatest caution must be exercised in selecting a person with whom to put the pupil. The choice of a place, too, is another very important matter, as the climatic and social conditions of the various tea districts vary greatly. Ceylon certainly takes the lead among tea-growing districts in point of desirability ; its balmy atmosphere and beautiful scenery make it an ideal residence (it is one of the three sites of the Garden of Eden), while its luxuriant vegetation renders the cultivation of all manner of crops an easy matter. These things must all be taken into consideration when later on a plantation has to be bought and the newly established planter settles down upon his own land in the bungalow to which in after years he will bring his wife, and where his children will grow up.

A planter as tutor having been chosen, the boy prepares to start to his destination. Assuming Ceylon to be the country selected, his journey will cost some £36 to £50—that is, the sea portion of it, the land part depending, of course, upon the

exact situation of his destination; for this and his outfit and varied incidental expenses upon the voyage a sum of £100 should be allowed. The charges made by planters vary considerably, from Rs. 120 to Rs. 200 per mensem, which sum includes board and residence in the planter's house and instruction in tea growing. It does not, however, generally include the use of a pony, and the pupil will probably find this a necessity, for which an extra sum of Rs. 20 per mensem must be spent. The time passed in learning is generally two years, and the life, though rather solitary in the larger and more remote plantations, is a very pleasant one. Visitors are all the more welcome because they are rarer than in more populated districts, and the excitement and variety of visits to the neighbouring towns are thoroughly appreciated. Even in hospitable India the hospitality of the planter is proverbial.

A planter's life is by no means an idle one, passed in lazily enjoying the profits of black labour, as the pupil soon discovers. Work, hard and continual work, albeit there is no actual manual labour, from early morning till short tropical twilight gives place to night, is the secret of successfully conducting a tea plantation. Before sunrise, after an early cup of coffee, the owner is up and making a tour of inspection around the estate, seeing that the Tamil coolies, men and women, are at their work among the sweet-smelling tea-shrubs and slender white-flowered Cinchona trees. Constant supervision is required wherever Oriental labour is employed. In the heat of the day, to travel over the sunny, treeless paths, even when protected by a "solar tope," is trying. Then the accounts of the estate have to be carefully kept, the state of the markets studied, and a vast amount of correspondence to be got through. Shrewdness and the power of calculation are highly necessary qualities, for the success of the crops in a great measure depends upon a thorough knowledge of the weather and the conditions of the soil.

When the pupil has finished his novitiate in tea planting he will, if he has capital, buy a share in some estate, possibly the one whereon he has lived; but if not possessed

of money, he will have to content himself with the position of manager or overseer. The pay given to these varies considerably, according to the size of the estate, but a very usual rate is from Rs. 300 to Rs. 600 per mensem, with a bungalow included. It will be seen from this that the pay is not high, but living is cheap, and the axiom that "Man wants but little here below" is realized in the tea districts of Ceylon. Assam and the adjoining provinces of India are also well-known tea districts, to which the previous remarks apply: and there is every reason to believe that the tea-growing industry under the British flag will soon become so important a factor in the world's commerce that the China fields will be more than ever neglected as affording profitable openings for the young planter. Whether the civilizing influences now being brought to bear on China will alter this is a question for the future.

## The Church Missionary Society

THE career of a missionary can in no way be considered in the same light as other professions; indeed, properly speaking, it cannot be regarded as a profession at all, as missionary life is a thing apart, and those who seek substantial advantages, and whose objects in life are social advancement and a good income, will find little to interest them in this article. But there are, and always have been (and it is well for us as a nation that this is so) men who have a higher ideal than mere worldly success; men whom the money-grabbing spirit of the age, the fevered endeavour to grow rich at all hazards, has left untouched, and who, putting aside their own individual tastes and inclinations, sincerely desire to do some good in the world; men who are willing to lead a life of self-denial for the sake of others, men of the type of David Livingstone and Charles George Gordon. To such men the Church Missionary Society offers opportunities for a career of usefulness, and a little information upon the qualifications required for entering it and the kind of life led by some of the members will be of interest.

The world is much divided in its opinion as to the expediency, moral and political, of weaning nations from the faiths of their ancestors; but every one at least will grant that missionary work has been productive of much good, especially where the care of bodies goes hand in hand with that of souls.

Candidates are of all classes, and their occupations as missionaries are widely varied. The Society divides them into four classes. First come clergymen who have been

already ordained, possibly who have already undertaken work at home, but who feel that there is more scope for their energies further afield; and men who wish to take holy orders, but who are unable, probably on account of the expense, to go to a university. These latter candidates are received into the Society's college, and receive a course of theological training, which is given at the Society's expense if the candidate is absolutely unable to provide for it. Secondly come doctors who are willing to abandon prospects of home practice for medical mission work; thirdly, there are engineers for mission steamers, printers for mission presses, and schoolmasters for the many excellent mission schools; and lastly, lay evangelists, who are neither ordained nor professional, but who may be described as good "all-round" men, and who receive a short special training fitting them for their special work.

Of all these classes we have to do with the first only. The expenses at a university which will have to be incurred by a boy taking orders cannot be computed at less than £120 a year, which for the necessary three years makes a minimum of £360; but the expenses at a theological college are smaller, and more moderate still are the expenses at the college of the Church Missionary Society.

The man who has made up his mind that missionary life is his vocation must write to the Secretary of the Church Missionary Society, Salisbury Square, London, E.C., giving the names of two or three references; he receives a paper of questions, and if the answers to these, together with the references, prove satisfactory, he is invited to see some of the committee in London, who inquire into his qualifications, which they divide under four heads. First, important in every walk of life, comes health; the candidate is examined by the Society's medical adviser; a high standard of constitution is required for the work in the tropics, under a burning sun, often in a malarial climate, far from medical aid and the various resources that we at home have been taught to look upon as necessities. Of spiritual qualifications, it is most necessary that the candidate be thoroughly earnest in his desire to do good to the inhabitants of **foreign**



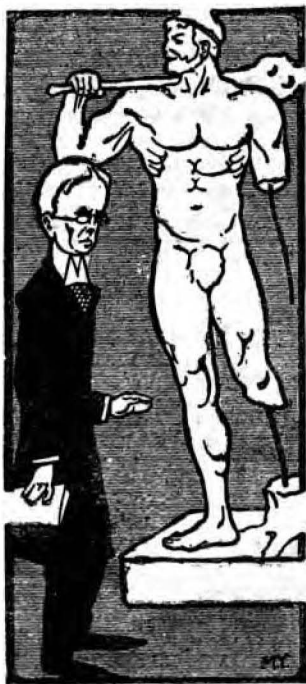
lands; there must be no half-heartedness about it; he must be prepared to devote his whole life to the service; he must also be thoroughly "sound" in his theological views, belonging to the school known as "Evangelical," for he has to walk in the footsteps of the earliest evangelists. His intellectual capacities must be good, as he will be required thoroughly to master foreign languages and dialects—for translation work is frequently needed—and he should possess the gift (one that is by no means given to all) of imparting knowledge. His practical qualifications should be a cheerful, amiable, and unselfish character, and, above all, tact, for without this labour would be in vain amidst the unreasoning, childlike dispositions of many dusky races; the want of this same quality has been the cause of many deplorable occurrences, frequently culminating in loss of life and serious political difficulties. Another point of importance is whether or no the candidate is engaged to be married. The Society asks this question, not because it wishes to set a premium on celibacy, but because it expects a missionary's wife to be a helpmate to him, and to this end it is necessary that the lady should possess the good health and requisite qualifications for the life before her, and a spouse who would fulfil these conditions admirably at home might prove utterly useless when transplanted.

And the pay? This must ever be a secondary matter in such a calling, but the loaves and fishes have to be considered. There are many honorary missionaries and others, who possess some small means of their own; but the total lack of such possessions is no drawback, for the Society ever deems the labourer worthy of his hire, though what this same hire shall amount to depends entirely upon the discretion of the committee, who take all individual circumstances into consideration, and make their allowance accordingly.

Very many pictures have been drawn of the desperate sufferings and hardships of missionary life; but it must not be imagined that these represent the normal condition of things, any more than the exaggerated stories of opponents to missionary work concerning the fortunes amassed from

the natives and the secret affluence of missionaries. In the larger places, more especially in Indian stations, the life is a pleasant one. The pretty mission bungalow, surrounded by a garden, is comfortable and airy, although it is situated away from the European and near the native quarters. If considered necessary, expenses for a horse are allowed, as well as the house, besides certain servants, and the stipend varies from Rs. 250 upwards, according to the size of the family and their needs. In the hills, too, the lines of missionaries fall in pleasant places; but they will find, although in the midst of compatriots, a certain amount of isolation, as their work and interests fully occupy their time, and lead them in a totally different direction from that taken by their European neighbours.

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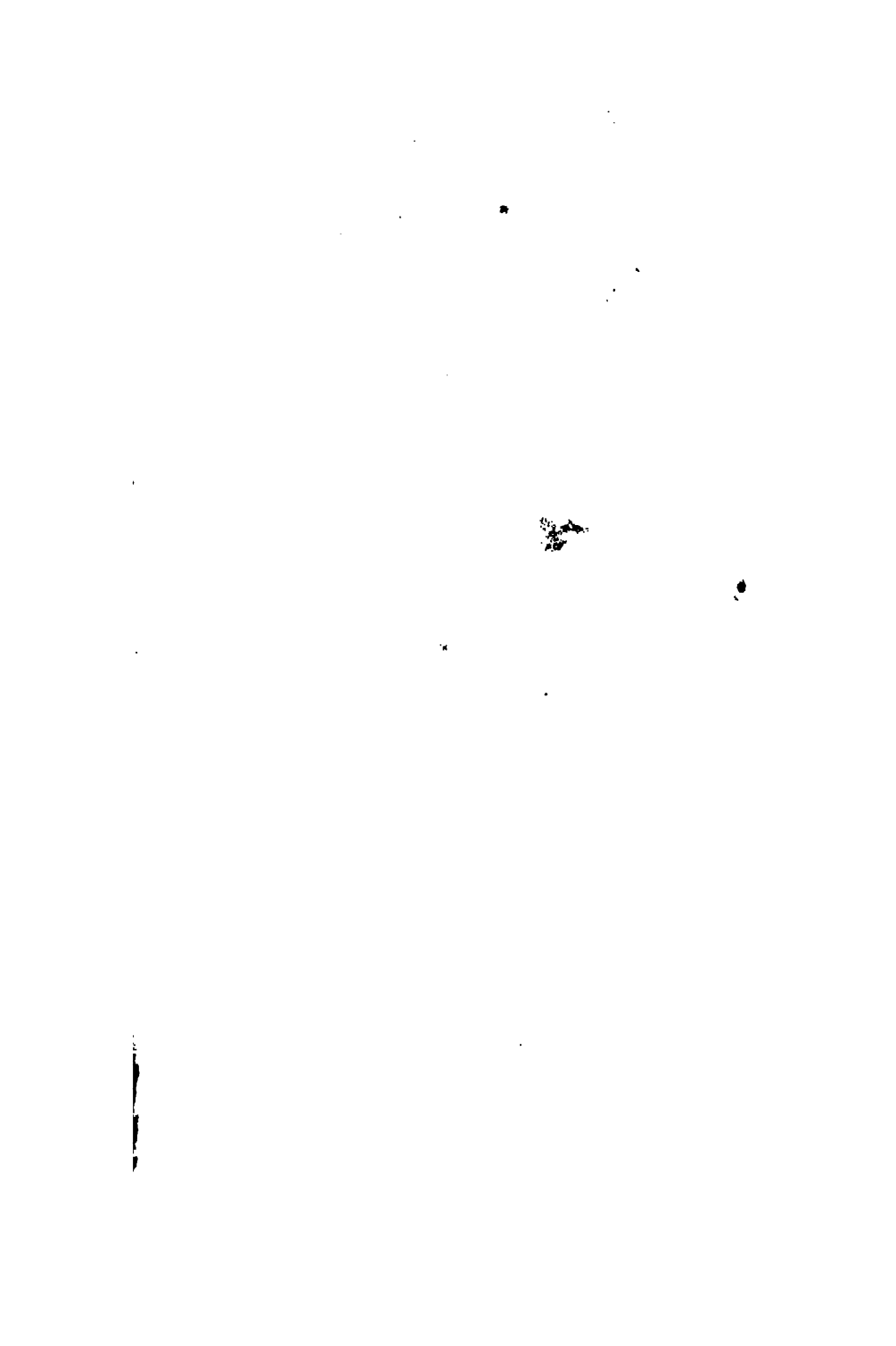
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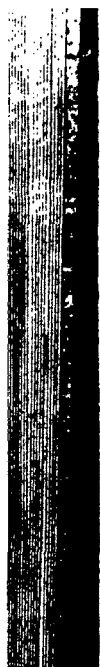
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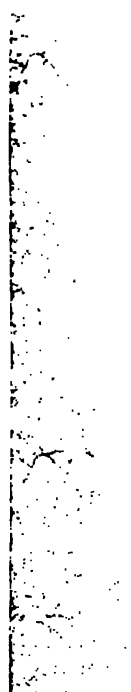












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