UNIVERSITY GAZETTE

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Liberal Education.

The ordained agencies for teaching have been mumbling little else but dead formulas.—*Herbert Spencer.*

This is a strange assertion of the eminent scientist. Yes, strange indeed is it if amid the time-honoured system, renowned schools, and wise instructors existing at our head centres, we hear nothing but the sound of "dead formulas," and learn nothing save the antiquated accumulations of bygone ages. Strange, if the thousands of young men frequenting the halls of learning are doomed while there to live in the far past, and thus remain in ignorance of the knowledge which would fit them for the practical issues of life.

Now, it is well known that this is the conclusion of a large and by no means unintelligent class, and they believe that that classical and mathematical system which has held absolute sway in our universities for upwards of two centuries, is well nigh collapsed, being unsuited to the requirements of the present age, when the value of every science, even that of theology itself, is tested by its practical bearing on the present life of man.

It is only fair to state here that this is my own belief, and in this and the following contributions, I will endeavor to assign my reasons and exhibit that which appears to me to be the system likely to supersede it. I will first point out the old, or grinding theory, in order that we may apprehend it more clearly, and understand the succeeding reflections respecting it.

1. The object of education is purely and solely a discipline of the understanding.

2. Classics and mathematics are the best adapted to train the faculties.

3. It matters not whether the subject be interesting.

4. It is immaterial whether the students think or care to think about the questions which occupy the highest minds.

5. The Latin and Greek grammars are the strongest tonics to the juvenile mind.

In the above we have before us the platform upon which the vast majority of our educationalists do now, and have long taken their stand. It is not necessary for me to enter into a refutation of the fallacies in it, inasmuch as, in the light of a truer psychology, they are patent on the face. The principles wrapped up in this grinding system find few if any advocates among those familiar with the mind and its laws of development; and these alone are the proper judges. It is maintained by those that the only legitimate province of education is to implant the germs of knowledge in the juvenile mind, to teach the laws in accordance with which these germs are to be developed, and the fruit assimilated with our mental nature. Further: that the only correct system of education is that which gives students a taste of the sweets of knowledge, awakens in them an enthusiasm for it, and fits their natural implements for its acquisition. Thus discipline and utility are to go hand in hand; the one is not to be separated from the other, and to do so is to do violence to the very constitution of our minds.

That the present grinding system is largely at variance with this view, is easily seen, and is admitted by its supporters. Now this old theory has had its day, and during one hundred and fifty years from its adoption, did its work tolerably well; for there was nothing better to take its place. Physical science was then comparatively unknown; the English language could not be studied philologically, and mental and moral philosophy were then in their infancy. But during the past half century it has been detrimental to the progress of a higher civilization, and in no part of the civilized world are its baneful effects seen more than in Canada. For although Canada has a common school system which will compare favourably with that of older countries, yet the higher schools—those capable of fitting young men for the University—are few. Besides, the majority of those presenting themselves at our Universities are the hardy sons of toil, and whose elementary training is, in consequence, defective. I have known not a few, entering on the studies of the four years' curriculum, whose acquaintance with Latin and Greek did not extend beyond three months. Now to admit such under the present system, is little short of criminal on the part of the authorities. It is a wrong to the young men—an evil done to the country, because they are thus compelled to spend the greater part of four years, in the prime of life, in poring over Latin and Greek texts from which they derive no lasting advantage. For all their translations they are indebted to Mr. Bohn; not one in ten can translate properly five lines of Homer or Juvenal at the termination of their course. Their mental effort is almost a purely mechanical one. The beauties of style are rarely seen, and as rarely appreciated. With the thoughts, design and sentiments of the respective authors, they are ignorant. What I have said of classics in relation to partially prepared students, will apply almost wholly to mathematics, though I admit that a previous preparation in regard to the latter does not make so much difference. But in the case of a large number of our collegians, the study of mathematics, as taught at present, is up hill, half-profitless work; pursued with very little pleasure, dealing in abstractions apart from the concrete, and expanding the faculties and leaving them blank. Remember in the above class are included one-half of the number to be found in our halls of learning, and generally among these are to be found the least alloy. In these are the stamina, the administrative talent, and the moral courage requisite to a nation's greatness.

Now, were the curricula changed so as to place *abstract* mathematics, Latin, and Greek in a subordinate position, and give to the physical sciences, philosophy, English literature, modern languages, political economy, &c., the higher place, this unprepared class would profit largely by their college course, and leave with the prospect of living well; and not only this class, for we will go so far as to embrace those whose early advantages are all that could be desired. They, too, would be gainers by the change. All would be better qualified for fulfilling the ends of their existence.

JERKAB MALCS.

Competitive Examinations.

The strong desire for distinction, the keen competition for pre-eminence, and the eager contest for superiority, which characterize the present age, are the impulses appealed to in competitive examinations. To excel his fellow students, to distance his competitors in examinations, this is the end, the aim, the goal of a student's ambition. In the attempt to attain this object, this bauble, the student frequently sacrifices health, and voluntarily foregoes the prospect of future distinction. On the principle that a "bird in the hand is worth two in the bush," he grasps at the shadow, allowing the reality to slip out of his hand. The evils attendant upon excessive competition at college examinations, have been attracting marked attention in England, and are now the subject of considerable discussion there. A small, but influential and steadily increasing party, with Mr. Todhunter, the celebrated mathematician, at their head, have been agitating the abolishment, or at least the modification, of competitive examinations in the schools and colleges of the old country. They affirm that these contests are prejudicial instead of beneficial, a hindrance instead of an assistance, to the intellectual progress of our race; not only are they not conducive to the advancement of sound learning—to the development of native talent, but they are positively a barrier to the acquisition of real knowledge—a stumbling-block to the attainment of true science. If these examinations, then, are found to be so opposed to the development of the mental abilities of young men in a long settled country like England, with its hereditary nobility, its titled aristocracy, and its numerous orders of knighthood, how much greater must the evil be in a new country like Canada, without any titles to bestow upon its citizens, without any public marks of distinction between the noble and the common, the celebrated and the unknown to fame, except those for literary and scientific merit, awarded by our universities! These, then, being the only honours open to young men, it is no wonder they should place an exaggerated value upon university degrees—that they should prize too highly the honours and medals won at college. These are considered as the first step in the ladder of fame, as the preliminaries to future distinction, as the talisman to the first ranks of society. Thus, the honours and medals and prizes come to be valued for themselves, and not as marks of the ability and talent and learning they represent. The amount of knowledge acquired, the habits of industry and persevering research formed, these solid benefits accruing from a course in college, are regarded as of secondary importance to the glitter and show of taking a high rank at examinations. No better plan, no more efficient method than this, could be devised for bringing a college education into disrepute, and it behooves all friends of higher education to join in eradicating this evil from our educational system. This defect in college training can only be remedied by the hearty co-operation of both students and examiners. The latter can help in this work by making their examinations more practical, by giving questions which will test the students' powers of observation and reasoning as well as of memory. If the students knew that constant application during the whole of the session was requisite to enable them to pass the examination at the end, the work would be more thoroughly mastered; for as it is at present, they generally accomplish very little in the way of study during the early part of the session, and rely upon cramming towards the end to be able to pass the examinations creditably. In this way, students gifted with good memories can, by coming up to examination immediately after a few weeks' cramming, though with a very superficial knowledge of the subject, take a position at the head of the lists. They have burdened their memories with the contents of the text-books, merely for the sake of passing the examinations, and so slight a hold have they of the knowledge acquired for this purpose, that one month, or even one week after, three-fourths of it will be forgotten. Like hot-house plants forced up almost at once to great luxuriance by artificial means, they have an unnatural growth for a short time, but having neither strength nor depth they cannot endure the slightest test, but immediately wither away and disappear. Those on the other hand who have conscientiously kept up with their work during the whole session, who have made the best use of their college-training, and who are really the most thorough scholars, though perhaps cast into the shade at examinations by the former class, (their inferiors in general knowledge and sound training), are like the hardy twig, which has grown up subjected to every blast, and is able to stand even the most severe test. This accounts for the fact that so few of our medal-men and honour-men afterwards make their mark in the world; that they are, as a rule, in after life altogether surpassed by students who came out a great way below them in college. We do not wish to be understood as casting any slight upon medals and the winners of them, nor as in any way undervaluing them—on the contrary we consider the medals a prize worth trying for, a possession every student should try to obtain, and which it is an honour to gain; but we advocate that medals and honours should be the mark of solid learning and high abilities; that the examinations should be a test of these, and not merely of a retentive memory and good powers of cramming. This much lies within the province of the examiners, but this goes only a very short way towards the desired end; the remainder must be the work of the student. And it is just here that the greatest difficulty meets us. It is very easy to give advice and make rules, but it is not so easy complying with them. As long as so high a value is placed upon passing well at examination; as long as there is this excessive competition for prizes and honours, so long will the student prepare his work with a special view to passing a good examination. If to the exciting impulse of present ambition we oppose only the cold dictates of reason, pointing to future distinction, things will remain as they are. What we require is some motive constantly at work, which shall be a stronger impulse to study, than our numerous daily occupations are to draw away attention from it. This we find in the spirit of competition so essential in examinations, but kept in exercise under proper restrictions, during the whole session. Let students of similar tastes and habitudes of study form themselves into societies or associations or clubs for assisting one another in their studies. Let each club meet by itself and discuss questions and problems relating to the particular science they are studying. For instance, let all the honour-men in mental and moral philosophy join with the other students who purpose pursuing the same course, or who have a taste for that study, and form a club. Let them meet, say one evening in the week, and debate the different subjects brought up in the lectures of that week. Or let them take the examination questions of preceding years, and make them the subject of debate, some students taking one side and some another. With how much greater confidence and accuracy and fulness then would a student in philosophy answer any question in examination about innate ideas, the origin of space and time, or the respective merits of the empirical and intuitional theories, after having fully discussed these subjects in his club! Or take again the student in natural science. What better preparatory training could he have for attaining future eminence as a naturalist, than going out in company with the other members of his club, and doing practical work in the field, procuring specimens and determining them? He could in this way keep fully up with his lectures, and the strife as to which would get the most and the best specimens would act as an incentive during the whole session, and not only for a spurt at the end as at present. When field work would be impracticable, discussions in relation to different questions of science might be held within doors. These clubs would be proportionally better attended than a larger society, for every member would have a direct inducement to attend and take part in the proceedings. Another advantage would attend the formation of these clubs. The students would, in this way, become better acquainted with each other. They could see more clearly both the good and the bad qualities of their fellow-students, and would profit by them, pruning out the latter and cultivating the former in their own dispositions. They would be more apt to form friendships which would last their lifetime. As it is at present, the students meet in the college halls or the class rooms, for a short time every day, and form a mere acquaintance with each other, but very seldom that firm friendship so delightful to our social nature. Instead of leaving college without having made perhaps a single friend—without having had an opportunity of making his own good qualities appreciated, the graduate will carry into life a number of lasting friendships, formed with his classmates through a thorough acquaintanceship with each other. We have one big society in *quasi* connection with McGill—a society financially strong and capable of assisting materially in this work. Its endeavours hitherto have been rather in the opposite direction; it has tried to keep down any spirit of association springing up among the students. If it desires to promote intellectual culture among the alumni of McGill, it can do this by using its influence in inducing the formation of clubs such as we have been advocating. It would find that the University Literary Society itself would be benefited by such a movement—that its meetings would be attended by scores of students able to express themselves fluently in public instead of the half dozen who now attend, with difficulty forming a quorum. The way in which their assistance would

be most valuable would be in providing rooms in some central locality for the clubs to meet in, which they could very easily do if they are going to act upon the suggestion made in last month's *Gazette*, to obtain rooms of their own to hold their own meetings in. Another work might be the giving of prizes for the best collections of specimens and the best debates in the clubs. It is, of course, too late this season for the formation of clubs, but we trust that this suggestion will be carried out among the students next year, and that we will have clubs actively at work in all the departments of science, immediately after the opening of next session. K. N.

Vivisection.

The English periodicals, for some weeks past, have been discussing the propriety and limits of vivisection—that is, the practice of experimenting on living animals for scientific purposes. There has been much said on both sides, and a good deal, perhaps, that had better have been left unsaid. Dr. Michael Foster, in *Macmillan*, has written an article which seems to us as logical and convincing a defence of an important branch of science, as any one could desire. The *Canadian Monthly*, however, a magazine from which we expected more good sense and fairness, speaks of it thus: "It is, perhaps, one of the most specious, as well as one of the boldest defiances of all popular feeling on the subject of human dealings with the lower creation we have met with. Like the 'nigger' under American slavery, the cat, the dog, or the rabbit, have no rights which 'the white man is bound to respect.' The scientific professor may torture them, not merely for the purposes of scientific experiment, but also for mere physiological demonstration. In other words he may train his students to take delight in the infliction of pain, when it can be of no use, except as a source of delight—when there is nothing to be discovered that was not established before, and nothing to be gained by the vivisection, unless the brutalizing of human hearts can be called a benefit." In a note to his article, Dr. Foster mentions as an example of "malevolent ignorance," a critic of Mr. Huxley's book, who was afraid that to inform the young that blushing might be produced in a rabbit's ear by dividing the sympathetic, would encourage a spirit of reckless cruelty. With this rebuke before him, the writer in the *Canadian* ought to have avoided making a similar display. From all we can gather, both critics are equally ignorant of anæsthetics, and of the fact that the operation is not one which can be done by a schoolboy with his little hatchet. If the reviewer had but stuck to the time-honoured rule of his profession, viz: to gain all knowledge of the subject from the work criticised, he could hardly have written in such misleading terms. It is expressly stated by Dr. Foster that the great majority of experiments are performed on animals rendered unconscious and killed before they come to their senses. Of the small proportion performed without anæsthetics few are necessarily painful.

The question on which the whole matter hinges is that of the "rights" of the lower animals; this is too wide to be discussed in full, so we shall content ourselves with summarizing the argument of Dr. Foster.

It is admitted by all that man is justified in depriving the lower animals of life and liberty when his comfort or safety require it. He does not consider himself bound to live wholly on vegetables, in order that sheep and oxen may die of old age instead of in the shambles; nor will he be five minutes late for his dinner to save the cab-horse from the lash. If the every day pleasure and business of mankind necessitate the killing of cattle and the keeping of horses in life-long slavery, surely taking life in the interests of science does not deserve the epithet of brutal. In short, the interests of man are paramount, and the life and comfort of the lower animals are to be considered merely in relation to those interests. The societies for the prevention of cruelty to animals, whatever their promoters may say, really no more exist for the sake of the lower animals than do free schools and mechanics' libraries. If the animals were of no use to us they would be exterminated like vermin. As they are of great use we allow them to live under such conditions, often painful enough, as shall make them most useful. The infliction of unnecessary pain is prevented in the interests of society, as retarding the civilization, and thus the happiness of man. An equal or greater amount of pain, if caused for an adequate object, cannot be called cruel. To call painless class experiments torture, useless except for the purpose of brutalizing human hearts, and to lead people to suppose that a physiological demonstration means only shrieks and writhings, and delight in pain for its own sake; this is to be guilty of something more than mere ignorance, however malevolent. Many operations are of such extreme delicacy that the slightest struggle, or even the physiological disturbance of pain, would make them worthless. It ought to be unnecessary to state that these are performed under anæsthetics, and that they have multiplied in number and value by this means. But the great mass of mankind is ignorant of science, and there are unfortunately some who are even opposed to it. The former we pity and strive to improve; the latter are as positively injurious as their very limited powers will allow them to be. They talk vaguely about the materialistic and infidel tendencies of modern science, to make some shallow pretence to learning; and thinking, probably, that present knowledge is even more than sufficient, try to clog the wheels of science with the rust of their own effete prejudices and superstitions. It would be idle to talk of the benefits of physiology to men who, instead of trying to moderate or abolish popular prejudice, share it, and increase it by misrepresentation. But this we may say without fear of contradiction, that every discovery of value in physiology and pathology has been either made or verified by vivisection. From the discovery of the circulation of the blood, more than two centuries back, down to the last published knowledge of the nervous system, the whole noble mass has been accumulated and cemented together by direct experiment. Dreadful as it may seem, this is the foundation of the modern art of healing and its countless benefits. No man who knows the advances of that art in the past will deny this; no man who is its friend would deprive it of so potent an instrument.

As to the limits of the practice no hard and fast line can be drawn. The experiments should, of course, be performed by competent persons and with adequate objects. According to the *Canadian*, physiologists hold that class demonstration not only justifies but requires the most horrible torture, all for the purpose of teaching students to delight in suffering. Now, this is altogether a mistake. The "Hand-book" from which it quotes some "sickening" experiments, "acts of brutality," etc., professes only to describe all the experiments; it no more requires them than a physician is required to gather and prepare his own drugs. Any experiments which are found to be "brutalizing" can easily be omitted. The propriety of each experiment must be left to the competent operator for decision, influenced, of course, by the public opinion of the scientific world rather than the outcry of the ignorant and prejudiced. Every physiologist hopes to publish discoveries and gain the approval of his brethren; and he knows that if he inflicts pain, it will meet with strong condemnation. Of physiologists, as a class, it is certain, in spite of the absurd libels which have been circulated, that they are as humane and as careful not to cause suffering as the cultivators of any other branch of science.

The agitation in England seems to have for its object legislative interference. This is, or ought to be, quite out of the question. It would indeed be strange if a fox-hunting, pigeon-shooting legislature which, in the *sport* of a single season, causes more torture than all the physiologists since the days of Noah, were to pass a law protecting animals, otherwise useless, from vivisection.

In writing this we are not making a defence of practices carried on in our own University; it is rather desiring that something may be done in the future to place physiology on an equal footing with the other branches of medical education, and teach it, like all the others, practically. We hope that this will be commenced as soon as possible, and if we cannot clear away popular misapprehension, the importance of the subject will justify us in disregarding it.

Correspondence.

To the "IRREPRESSIBLE NINE."—The worst kind of an education—to be *brought up* by a policeman.

DEAR MR. EDITOR,—As a rule, no one can complain of want of conciseness in the College calender. On one point, however, in the opinion of your humble correspondent, some light might be thrown. Would it not be advisable to give the names of the persons who, to the much-abused medical student, afford "*board at from twelve to sixteen dollars per month*"?

Your obedient servant,

A FUTURE FRESHMAN IN MEDICINE.

"University Athletics."

We have often been asked who the contributors to "University Athletics" are to be, and we append a list of gentlemen from whom letters have been received on this subject, and the most of whom have sent original articles for publication. The form of the book has not yet been decided upon, but it is expected there will be twelve or fifteen chapters, each treating upon a different subject. These chapters will consist of papers on cricket, rowing, football, canoeing, drill, rifle-shooting, ancient and modern athletics, snowshoeing, lacrosse, pedestrianism, besides general articles on athletics in their moral and physical aspects; and each subject will, as the list below shows, be handled by gentlemen of wide reputation and acknowledged ability. In addition there will be an appendix, consisting mainly of statistics, records, rules, tables, &c., &c., all derived from the most authentic sources, and carefully compiled. No efforts are being spared to make the work a thorough success, and certainly from the unrivalled list of contributors we have much to hope. We may also add that it has met with full approbation of the Governors and Principal of the University, and that they have expressed repeated interest in its progress and ultimate success.

His Excellency the Right Honorable the Earl of DUFFERIN, Governor General of Canada, Visitor to the University.
*GEO. B. WALKER, Captain Harrow School F.B. XX.
*ARTHUR W. NICHOLSON, Pres. Oxford U. Boating Club.
*J. B. CLOSE, Pres. Cambridge U. B. C.
R. A. FITZGERALD, Sec. Marylebone C.C.
J. LUARD PATTISSON, Priv. Sec. to His Ex. Lord DUFFERIN.
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E. A. MEREDITH, LL.D., Under Secretary of State for the Provinces.
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*EARL OF JERSEY, Pres. London Athletic C.
*HENRY R. GRANT, Captain Harvard U. F. B. C.
J. FORMAN, Captain Rugby School XX.
CHARLES H. FERRY, Pres. Yale U. B. C.
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PROFESSOR JAMES DE MILLE, Dalhousie Coll.
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Editon *Bell's Life in London*, No. 170 Strand.
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*JAMES WATSON, ex-Sec. National Amateur Association.
*SIR GEO. DUNCAN GIBB, Bart., M.A., M.D., LL.D., Portman Square, London.
*WENDELL PHILLIPS, Essex St., Boston.

* Have received letters from during March.

Notes on Football.

"Nevertheless, play your games and do your work manfully—see only that that be done, and let the remembrance take care of itself."
—*Tom Brown's School Days.*

In these days of popular sixpenny handbooks and sporting annuals, of *Bell's Life* and the *Spirit of the Times*, the few lines we have promised for this month's paper must of necessity be merely the welding together of jottings which have now and then caught our eye. "Notes" in fact, many of which must be familiar to most of us, and now recurring the more strongly at this season of the year, when the few lingering inches of snow must soon give way and leave bare for another season the short crisp turf so dear to the eyes of all true football players. From what source springs that instinct which for want of a better term, we call a taste for out-door sports? Is it because while life is epicene—vibrating between petticoats and trousers—most boys are delivered over to the care of a familiar spirit, with a tremendous biceps, and surrounded by a halo of cricket bats, and oval balls, racing shoes and diamond sculls? Be it as it may, we can only recognize the ever-spreading popularity of pastimes so characteristic of many of the noblest properties of man's nature. We find called into exertion courage, perseverance, strength, activity, caution; these are the wholesome machinery of excitement, and it is an excellent thing when the youth of any country can adopt the hale, bold pastimes which have ever been peculiar to the English people, without prejudice to their manners or their morals.

Football we know to have been one of the most ancient of English games, but until about ten or fifteen years ago it was confined to some of the great public schools, having fallen into disrepute, owing to the rough character of the sport during the sixteenth and seventeenth centuries. At the present day, however, we have clubs at most of the colleges and larger schools in the States and Canada, and in the chronicles of sporting abroad, how often do we read accounts of stoutly contested games in India and in Australia, and notice its spread over the Continent of Europe, and few things are more strikingly characteristic of the present age and the progress of the nineteenth century, about which we so love to boast, than the continual widening of the domain of sport, and the growing universality of institutions which within a generation were looked upon as exclusively British, or at all events Anglo-Saxon; and if ever the history of sports comes to be written in a philosophical spirit, an interesting chapter will be taken up with an analysis of the causes which have suddenly spread all over the world the love of those out-door exercises and pastimes.

But to return to our more immediate subject, the many merits of football recommend it to public favour, as rare combinations of skill and activity, no less than the possession of courage and self-control are required to make a good player, and at the same time it inculcates the benefits of discipline in an explicit manner. Until a few years ago the methods of playing football were varied and numerous, but the game has finally settled into two distinct styles—the Rugby rules, and the Association rules. The object of the Association code is to encourage "dribbling," and simplicity has also been carefully studied by the abolition of all clauses and technicalities calculated to prevent the easy comprehension of the rules; the Rugby laws are much more extensive and elaborate, and the main idea is to encourage speed of foot with a minimum of kicking, besides, there being an atmosphere of danger in the "hacking" and "mauls" so dear to every player *more Rugbeiensi*. We to-day publish a copy of the College rules, revised and amended up to April, 1874, and these will make the chief features of our game apparent to every one. They disagree very materially with the rules of the Canadian Association, and while we regret our exclusion from playing for the Champion Cup, yet we feel bound, both by honour and inclination, to stick to our own game, which seems always to have suited our men peculiarly well. The practice of hacking, fondly considered by a few benighted individuals to be the chief feature of our game, has been long ago utterly put a stop to, and a player may go through the whole season without receiving a single hack except from some clumsy or bad-tempered opponent. The practice of mauling too, is now pretty effectually done away with, and the matches have become faster and the play more spirited. We might, too, write a few words on the absolute necessity of unison in a football team, and also how it behoves each one to contribute to the general success by the mainspring of football, "playing up," and second only perhaps in importance, the grand and essential principle of "backing up;" charging, too, which when injudicious is one of the greatest errors in which a player can indulge, is a point on which great misapprehension prevails with those who have not yet finished their term of apprenticeship at football; but the game, however, is of such a Protean nature that it is difficult to offer a prescription for all its different phases, a knowledge of which can only be gained by the crucial test of experience. We can pretend to no originality in the foregoing remarks; in fact to Messrs. C. W. Alcock and F. I. Currey, the Hon. Secs. of the Football Association and the Rugby Union, we are indebted for most of the ideas, and to the files of *Bell's Life* for the comments thereon.

We cannot close the subject without mentioning the proposed

match with the team of Harvard University. We are glad to learn how smoothly the preliminaries are being settled by the Captains of the respective teams, and trust that our men may be able to put themselves into practice toward the end of the month, as it will be absolutely necessary to have some "larking with the ball" before opening the season with such an important match; and we hope that the team which may be selected will be able to meet our friends "over the border" and remember that when with "foot and eye opposed in dubious strife," they are battling for the honour of their club, as they have so often done before on many a hard-fought field. We might wax eloquent and frothy on international contests, the exchange of civilities between American and Canadian colleges, &c., &c., but it would be so much time spoiled, as we are sure the Harvard men feel as we do, that we shall be very glad indeed to meet one another, and that in this endeavour to get on a match, we have each been equally anxious to bring such a meeting about. R.

Playing Rules

OF THE McGILL UNIVERSITY FOOT BALL CLUB.

Revised up to April, 1874.

I. Each goal shall consist of two upright posts, 16 feet high and 15 feet apart, with a cross-bar at a distance of 10 feet from the ground. The *maximum* length of the ground shall be 150 yards; the *maximum* breadth shall be 75 yards.

II. The number of players on each side shall be not more than twenty, or not less than ten. The definite number to be settled by the Captains before each match.

III. The winners of the toss shall have the option of kick off or choice of goals. The game shall be commenced by a place kick from the centre of the ground, and the opposite side shall not come within ten yards of the ball.

IV. The ball shall be *kicked off* (i.) at the commencement of the game, (ii.) after a goal has been obtained, or (iii.) at the end of each half hour.

V. After a goal is won ends shall be changed, and the losing side shall kick off. In the event, however, of no goal having fallen to either side at the lapse of half an hour, ends shall then be changed.

VI. The ball may be caught on the bounce and carried; the player so carrying the ball may be "tackled" or "shouldered," but not hacked, throttled, or pommelled. No player may be held unless in actual possession of the ball.

VII. In the event of any player holding or running with the ball being tackled, and the ball fairly held, he may at once cry "*have it down*"; he shall be allowed to place it on the ground unmolested; but he need not do so until his own side come up.

VIII. A Goal can only be obtained by kicking the ball from the field of play direct (*i. e.*, without touching the dress or person of any player of either side) over the cross-bar of the opponent's goal, whether it touch such cross-bar, or the posts, or not: but if the ball goes directly over either of the goal posts it is called a *poster*, and is not a goal. A goal may be obtained by any kind of kick except a *punt*.

IX. A match shall last for three half hours—it shall be decided by the majority of goals, or it the event of no goals being obtained by the majority of *touch-downs*; three touch-downs counting as one goal.

X. Every player is *on side*, but is put *off side* if he enters a scrummage from his opponent's side, or being in a scrummage, gets in front of the ball, or when the ball has been kicked, touched, or is being run with by any of his own side behind him (*i. e.*, between himself and his goal line.) Every player when *off side* is out of the game, and shall not touch the ball in any case whatever, or in any way interrupt or obstruct any player, until he is again *on side*.

XI. A player being *off side* is put *on side* when the ball has been kicked by or has touched the dress or person of any player of the opposite side, or when one of his own side has run in front of him either with the ball or having kicked it when behind him.

XII. It is lawful for any player who has the ball to throw it back towards his own goal, or to pass it back to any player of his own side who is at the time behind him, in accordance with the rules of *on side*.

XIII. If a ball goes into *touch*, the first player, on his side, who touches it down must bring it to the spot where it crossed the touch line; or if a player, when running with the ball, cross or put any part of either foot across the touch line, he must return with the ball to the spot where the line was so crossed, and then either (i.) bound the ball in the field of play, and then run with it, kick it, or throw it back to his own side, or (ii.) throw it out at right angles to the touch line.

XIV The goal line is in goal, and the touch line is in touch.

XV. If the ball be sent beyond the side-bounds and yet behind the goal line, it shall be touched down and thrown in from the corner in a diagonal direction by whoever touches it down.

XVI. It is not lawful to take the ball from off the ground for any purpose whatever, unless it be in touch.

XVII. No *hacking*, or *hacking over*, or *tripping up*, shall be allowed under any circumstances. No one wearing projecting nails, iron plates, or gutta percha on any part of his boots or shoes, shall be allowed to play in in a match.

XVIII. In case of any distinct and wilful violation of these Rules of Play, a free kick shall be forfeited to the opposite side from the spot where the infringement took place, but in no case shall a goal be scored from such free kick.

XIX. Continued transgression of Rules by any player, the side to which he belongs shall lose him.

XX. All disputes to be settled by the Umpires, whose decision shall be final.

DEFINITION OF TERMS.

1. *A drop kick* is made by letting the ball fall from the hands and kicking it the *very instant* it rises.

2. *A place kick* is made by kicking the ball after it has been placed in a nick made in the ground for the purpose of keeping it at rest.

3. *A punt* is made by letting the ball fall from the hands and kicking it *before* it touches the ground.

Out of the 106 men who have recently attained mathematical honors at Cambridge, and the 29 who distinguished themselves in the Law and History Tripos, there were 46 boating men, 15 cricketers, 10 foot-ball players, and 18 who devoted themselves to athletics proper, and some of them were proficient in more than one of these pastimes.—*London Graphic.*

The Old Birchen.

AFTER WOODSWORTH.

How drear to my heart are the scenes of my childhood,
Where sad recollection presents them to view:
The orchards I robb'd, and the deep tangled wildwood
When first the sour sweets of the truant I knew.
The ice-covered pond, oh, how oft I shot o'er it
When four o'clock came and the class was dismiss'd;—
The thong of my *pater* how often I bore it,
Tho' twas nought to the Birch in the school master's fist!
The nicely trimm'd Birchen!—the sharp-cutting Birchen!
The torturing Birch in the school-masters' fist!

That torturing Birchen I hailed with no pleasure,
For often at noon when returned we too late
The master would deal out his terrible measure
To those who shared with me my ill-deserved fate!
How ardent I watch'd it with cheeks all a'glooming,
As quick on my digits the heavy strokes fell;—
And soon with salt tears my eye-lids o'er-flowing,
I'd vent out my anguish in one supreme yell!
That nicely trimm'd Birchen! that sharp cutting Birchen!
That torturing Birchen he managed so well!

How oft I've gone up from my seat, to receive it,
And mounted the back of some school mate of nerve:—
No entreaties would tempt the old pedant to leave it;
Nor prevail on his heart from his duty to swerve!
And now far removed from the scene of disaster,
The scars on my back swell intrusively swell,
As fancy reverts to the one-eyed school master,
And curses the Birchen he managed so well!
That nicely trimm'd Birchen! That torturing Birchen!
That sharp-cutting Birchen he managed so well!

B. A., B. C. L.

UNIVERSITY GAZETTE,

Published by the Undergraduates of McGill University on the First of every month of the Session.

EDITORIAL COMMITTEE:

J. S. McLENNAN, G. H. CHANDLER.
STUART JENKINS, AND E. LAFLEUR.
JOHN D. CLINE, B. A.
W. SIMPSON WALKER.

The GAZETTE requests contributions of tales, essays, and all suitable literary matter from University men. It will open its columns to any controversial matter connected with the College, provided the communications are written in a gentlemanly manner.

All matter intended for publication must be accompanied by the *name* of the writer in a sealed envelope, which will be opened if the contribution is inserted, but will be destroyed if rejected. This rule will be strictly adhered to.

All literary matter must be in the hands of the committee on the 15th of each month, unless special arrangements are made with the committee before that date.

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W. B. DAWSON, TREASURER. J. S. HALL, SECRETARY.

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The Graduating Dinner.

The graduating class in Arts, at a meeting on the 19th ult., decided to hold a class dinner on the evening of convocation day. We must congratulate them on having arrived at this decision; for to us it appears as a step towards that desirable end, the union of the class. Owing to circumstances, there has been too little of such union—there being little class feeling among our students—and the holding of a dinner at each convocation, will do much towards the promotion of a feeling of mutual interest among the members of each class, although this should commence much earlier in their college career, and the graduating dinner should be but the social climax of their four years' of intimacy. We have spoken as if this were the first occasion of a dinner of this kind being held. Last year, however, a dinner was given to the graduating class by the (then) Juniors, and the recollection of that occasion—for we had the good fortune to be present—is among the pleasantest of our college memories. So that if this is not the first dinner of the kind, the idea was at least first carried into execution at McGill by the present Senior class. While we write, we remember that in a day or two, the Law students will hold a meeting to decide if they will follow our example, and before this reaches our readers, we trust that their dinner will have come off.

The Arts Seniors divided on the question of there being wine on the table at their dinner—the majority being in favour of having it, and of having it in the way least offensive to the principles of those in the minority. Our own opinions we will not express on this vexed question, but in this connection will only say that, according to our view, the minority have already expressed their convictions by opposing it, and whatever responsibility may arise from having it there, it will not fall on them, and that having been defeated, those who on this account might feel inclined to stay away, will do well to yield gracefully to the force of circumstances, and not mar the pleasure of that occasion by reason of all the class not being present.

The Seniors have our best wishes for a pleasant evening on that occasion, and we heartily trust that the celebration of a dinner will be considered in the future as necessary a part of graduation as is the attending at convocation.

After Convocation.

A late Harvard *Advocate* says that the Cambridge people demand a fine sense of humour in their Chief of Police. From events which transpired after the dinner of the graduating class in Law, we would say that the people of Montreal demand an absence of justice in their police officials. Nine gentlemen were going quietly along a street, one of them was arrested on some charge which has not since been made sufficiently clear; instead of attempting a rescue, the others accompanied the policeman and his victim to the central station, deluded with the idea of bailing the latter out on proper explanation of all the facts. When they arrived there the charge against the first offender (?) was lost sight of, and all were arrested for the alleged disorderly conduct in loitering and obstructing passengers in the street. Even the imaginative powers of the city guardian, highly developed as they are, would not permit him to add the usual charge of "drunk"—a fact which certainly speaks very strongly for the perfect sobriety of our men; the whole party being thus inveigled into prison by a *ruse* of the "Bobby," bail was refused, and they spent the night in the station, to appear next morning in Court. Each pleaded "not guilty," and moved for permission to be tried separately, but the motion was rejected by the Recorder, and upon the contradictory evidence of the policeman, and without any opportunity of explaining matters, the whole party were fined *en bloc*. Such is the most impartial account we can give, having gathered our information both from our men, and the police by inquiry at the station. Strange to say the conviction was, *inter alia*, for obstructing passengers on the street, whereas, on cross-examination, the policeman admitted there were no passengers on the street at or about the time of the arrest. We can only account for the treatment our men received by the fact that it was actuated by the rabid dislike of the "proletariat" for any one who wears a dress coat. If such is to be the treatment gentlemen are to receive from the police, it appears to us likely that the next time any of us are molested by them that it would be preferable to appeal to strength—a course which, if not strictly justifiable, would at least be excusable, rather than by yielding to the law to trust ourselves to the peculiar ideas of justice entertained by the police officials of Montreal.

We are glad to hear that our men have been completely exonerated, even by the informant, from the charge of drunkenness. They have also determined not to let the matter rest. A writ of *certiorari* is to be applied for, when the record of the proceedings in the Recorder's Court will come under review of the Superior Court. It is also probable that criminal proceedings will be taken against the policeman.

The Literary Society's Lectures.

Mr. Wendell Phillips lectured here early in March. He has for many years been celebrated as a lecturer, and his services in agitating the abolition of slavery in America are well known to all. His first lecture, on O'Connell, was an able composition, but hardly suited to a city like this, where there is such a mixture of origin and religious and political feeling. It was met with cheers and counter cheers throughout, and criticised in the Press with more warmth than sense. It seems to us foolish to accuse Mr. Phillips of trying to please both parties; he had nothing to gain from either, and evidently uttered his convictions throughout. His feelings of course were with O'Connell, whose friendship he enjoyed, and with whom he worked during the most stirring times in his career. But, at the same time, he condemned strongly the crimes of both parties, and thus pleased neither. He dwelt a little too much, perhaps, on old grievances, which were better allowed to die out, especially in a new country.

Mr. Phillips's second lecture was one which is by many considered his masterpiece; we mean that on "The Lost Arts." He called it medicine to counteract the great disease of the nineteenth century, self-conceit. And pretty strong medicine it was. It lacked, of course, the warmth and personal interest of his former lecture, but it showed such a breadth of information, such an amount of out-of-the-way-knowledge and culture, as fully to counterbalance them. He told us that nearly all that we have been accustomed to consider as peculiarly our own, telescopes, weaving machines, steamboats and all, had been known ages ago, and kept secret by the ruling class of kings and priests. Printing alone had, by a hair's breadth, escaped discovery; and thus, when the rulers were swept away, their knowledge perished with them, and had to be accumulated anew with untold labour. Printing, however, it was refreshing to learn, really is ours; and by it knowledge is rescued from the danger of perishing as before.

Mr. Phillips is a trained public speaker, with plenty of matter, easy in voice and gesture. Mr. Kingsley is none of these. He is well known as the author of a score of widely read novels, besides sermons, pamphlets and what not, but as a lecturer he makes the platform too much resemble the pulpit, and that not at its best. It is part of the reward, however, of celebrities, that people will go to see them, if not to hear them. Mr. Kingsley was severely criticised in the United States for wanting a great American to bury in Westminster Abbey, promising, as Canon, to take good care of him. They thought the flattery too thin, especially as Mr. Kingsley had been a hearty sympathizer with the slaveholders during the rebellion. Here he wanted a great Canadian for a similar purpose. We were delighted with the idea. We have serious thoughts of going to England ourselves; not in a coffin to Westminster Abbey, but alive, on a lecturing tour. We have never lectured before; but perchance we may be able to see the country and pay our expenses.

The Society, it seems to us, has done something more than its duty in the way of lectures. Its first duty is the improvement of its own members—not to amuse or gratify the curiosity of the public. There are two more lecturers coming with fine lectures. We know little of them personally, but have reason to believe that they will be fully up to the average of their predecessors.

Exchanges.

The *Yale Courants* of the month are, as usual, only indifferently interesting to us outside the sphere of Yale influences and associations. In one number, some one attacks "Eternity" in rhymes, which, in some respects resemble a sonnet, but without definitely assuming that form. We thought that the Western College alone indulged in such themes, however, the Yale writer expresses himself in a more quiet way than do the Western men, whose effusions on kindred subjects we have seen. There is a good article on men who are ashamed of acknowledging hard work on their studies, showing the folly of it, and also that the sham is so transparent that no one is imposed on. We would like one or two of our men to read it carefully, and "turn from the error of their ways."

The *Dartmouth* contains, among other articles, an essay on Macaulay and Carlyle, after the manner of Plutarch. The fact that the *Dartmouth* essayist and Plutarch draw parallels, is all the resemblance between them—Plutarch, however, gave a history of his characters and his opinion of them, before he drew parallels between them, the other has not done this, and as we see herein no foundation for many of his statements, we are unable to agree with his conclusions, or to see how he arrives at them. Some of these conclusions are that Carlyle's style is better than Macaulay's—he is more of a philosopher, more of a genius, a better critic, &c. We will look now for a comparison between Froude and Herbert Spencer. There is about as much ground for one as there is of simularity between the two he has chosen.

We find little to notice in the *Beloit Monthly*. "Our reading-room" gives the information that 'The great Air Line to the moon" is written in a more scientific style, initative of Jules Verne. If our recollection of the article does not deceive us, it is a condensation of one of Jules Verne's books, which evidently has not yet reached Beloit.

The *Cornell Era* for March 6th, opens with "Passion Flowers," an erotic effort, as sensual and nasty in its meaning, in so far as it has any, as anything in Swinburne, but unredeemed by the splendid metre of which that poet is a master.

The *Queen's College Journal* is mainly occupied with "Our Noble Selves," the greater part of every issue being full of "Academical Notes."

The *Cornell Times* indulges in personals of an excessively personal character; that and the prominence given to the Literary contest are all that is remarkable about that enterprising sheet, which holds its own against the attacks of the entire Collegiate press.

Think of a paper that in three pages discusses Lent, Self-Knowledge, Fifty Years Hence, and Perfection! The *Western Collegian* does all this, and yet in the end has energy enough left to give a column of "Crusade Notes," in which some eight students say that they "confidently anticipate for it" (the womens' crusade) "a speedy, complete and permanent triumph!" If they are sincere, they will probably soon feel how true is the text "Hope deferred maketh the heart sick."

The College Journal is very good this month.

We acknowledge the receipt of *College Days*. We had to look through three or four pages of bad print to find out where it came from; when we found that out, we saw that they solicited contributions from their Faculty. We trust that none of the Instructors contributed to the number we received.

We find nothing to notice in the *Galt Collegiate Times*.

The *Acta Columbiana* is open to the same criticism we passed on the *Queen's College Journal*, that it is mainly occupied with themselves.

The *Owl* comes from California. Its article on Tobacco is good, and that on the Mamelukes displays considerable historic research.

The *Emory Banner* we criticized once, after that we did not expect to see it again; it has turned up lately, and from this we infer that they never read their exchanges. So much the worse for it.

The *Aurora* is a new exchange. It comes from Albert College, Belleville, Ont., and is fairly up to the mark of our usual, exchanges.

We shall say little in favour of the *Hellmuth College Journal*

that little referring to a translation from the German, which is well done.

The *High School* is a new exchange. While not strictly a college paper it is quite as good as many publications issuing from institutions with more pretentious names, though probably of no greater educational influence than the *High School* of Omaha.

After going through our exchanges, it is a pleasant task to take up the *Advocate* and read its well-written articles. Its poetry is, as usual, good, and its article on Sumner is, considering the space, very just and honest.

College Notes.

Notman is now engaged on the photographs for the senior class. The Committee for the Class dinner is: Ward, Craig, Harvey C., and McLennan; and McFee, Taylor, and Dawson, were appointed to make arrangements for Convocation.

The Inspection of the College Rifle Companies took place on the 6th ult., before D. A. G. Col. Bacon. Considering the short time they have been drilling, the appearance of them was highly creditable. The officers go up for their certificates in April.

Our Students' Boarding-Houses.

To one who has passed through our college course, alas! that there should, amongst the host of recollections the name calls forth, arise with them something very akin to a shudder, and too, an involuntary tendency to chattering of the teeth, as in imagination he sees his former self crouching over the narrow table of his bedroom study, while with cold benumbed fingers he turns over the leaves of his icy text. Nor is this shudder alone at the remembrance of life in an atmosphere verging on the freezing point; it results from a varied combination of objectionable things common to the subject of his thoughts—conspicuously, too vivid a recollection of certain dinner tables.

When "students" is prefixed to the term "boarding-house," let it not be supposed that students alone enter there—not so; the placard says "private board." This announcement remains up the year round, arguing thereby an unlimited capacity for stowage, like a 'bus on a rainy day, full, but can accommodate a half dozen or so more.

A boarding-house, be it in general ever so bad, has usually one redeeming feature in it. In that of my first experience the table presented quite a passable appearance; but as cause precedes action, so a cranky young Englishman took up his quarters here in advance of this favourable change in diet. Good did come out of Nazareth that time, and formed for us the one oasis in our desert life,—so making things endurable while the warm weather lasted. But not even a satisfied appetite can persuade one quietly to endure the rigours of a Canadian winter without the aid of artificial heat. Young John Bull could get along quite well, because he stayed in bed until about noon, luxuriously breakfasting under the blanket. The ostensible reason why we were left in the cold was neglect on the part of our landlady's coal merchant. That fuel dealer must have had an extraordinarily loose memory, because to my certain knowledge he received visits every day, for several weeks, from our "Missis," made furious (till she got round the first corner) by the wailings of frost-bitten boarders,—at least, so we were led to believe. One had the temerity to remark that he thought the "Missis" a swindle, and that she had never ordered any coal: but that we were all convinced was a base attempt to rob a poor Christian woman of her character—so thoroughly convinced was he that he forever after retained to himself the unenviable reputation of a slanderer.

Finding fault with a coal dealer may be a very interesting and satisfying thing when his ware is giving out warmth, but not so when every fireplace is as black inside as out—unless, indeed, the cooking one away down in the mysterious lower regions Individually satisfied that we could stand this no longer, we students—there were four of us—held a caucus, at which it was resolved to seek another house, and this time there was not to be any doubt about the supply in the coal bin. After much trouble, and having satisfied enquiries as to whether we were medical students or not, we secured a well-heated room as a study, and thought we were "set up" for the remainder of the session. But, ugh! when we think of that grease-stained table cover, uncooked sheep, and slipshod waiting girl, I wonder how we ever managed to drag out an existence there for the length of time we did, one whole month. There was something of the amusing element in life there. Our landlady was the wife of an ex-military gentleman, who, I grieve to relate, was rather fond of going round the corner, and on occasion of having thus gratified his appetite and being so propped up to regard life from a more benignant standpoint, returning home in this self-satisfied mood perchance proceeded to assume the reins of government down stairs, and to effect a revolution in the culinary department of his household: an enterprise which one might imagine to be highly praiseworthy. But not so thought his wife; and to quell this usurpation upon her rights, chastisement of the usurper became necessary, which she would accordingly proceed to administer, borrowing our grate poker for that purpose. We were rather glad to lend it, because it was sure to require scouring before it could be returned.

Glad to get away, even though it were again to be placed at the tender mercies of a fuel merchant, we moved to what was strictly a students' boarding-house; that is to say there were then only students there. Well, at least there is one satisfaction here—none of the vile company we had to put up with in our latest experience. This is all very fine, but we were early forced to make certain acquaintances whom we, in our innocence before, knew naught of, and who at first sight did not appear. For a special reason we rose early after our first night's *rest*, and hearing some stir in the adjoining room, entered there. We were rather surprised, and a notion of ours that students were all theory and no practice dashed to the ground completely broken; for there was a fourth-year man quietly seated in his bed, with a slipper in hand, dealing out, in the calmest possible manner, death and destruction on every side With a grim smile he bids us good morning, and pointing his disengaged hand towards the wall, says, "look!" Then becomes apparent what we did not at first notice, several fresh, carmine-coloured spots, with a central spot of dark brown, while a more minute inspection revealed very many similar ones, but of less recent date. The above we think is enough, if properly understood, to defame the character of any house, so we will refrain further comment upon it, and will conclude this relation of personal experience, but wish it to be distinctly understood that that place was not our dwelling for long.

Perhaps the above sketch may be somewhat overdrawn, or rather, the dark side has alone been presented to the reader. This, however, is clear, that it is unfortunate for our men that only a limited number can be accommodated in the college. We have dwelt only on the physical discomforts, but from these arise evils that impair a man's mental powers, and in addition to these there are hindrances to work, as from the presence in the house of men who never read, which, although a man may be willing to work, will yet prevent him from doing himself justice. There are but few of the boarding-houses available to students that are not open to one or other of the objections that we have indicated above, and until some remedy is provided, our students will labour under a disadvantage. As far as we can see the only way in which this can be done is by the authorities erecting a suitable building for students' rooms large enough to accommodate all our men. We will then not only escape the evils of the present system, but there are many advantages, apparent to all, in the students of a college living together "within walls." We will not stop to dilate on this, but simply express our wish that McGill, before long, will have suitable accommodation for her students, and that we no longer will be left to the trials of "Students' boarding-houses."

X.

Book Reviews.

FOUR YEARS AT YALE. By a Graduate of '69. [Chas. C. Chatfeld & Co., New Haven, 1871.]

That it is somewhat late in the day to review a book published nearly three years ago, we are perfectly aware, but the fact of our not having been in existence at the time of its issue should serve as the excuse for our delay, while the reviewing *per se* requires no defence. We simply wish to say a few words on (if we mistake not) the only book which has ever purported to give an enthusiastic account of the scholastic, social, athletic

and the hundred and one other matters which go to make up life within the halls of a great American university. The American university is a thing by itself, the outgrowth of a peculiar system, and its likeness is not to be found in Europe. Oxford has not that peculiar class-feeling which is so hard even for a Canadian to understand; her undergraduates, save the budding Freshman who, simple and unsuspecting as our old friend the stultos in Hierocles, seems to be the traditional 'Varsity butt all the world over, stand on a footing of equality towards one another, their sets formed by parity of taste or condition rather than by an equal progress in their studies, with their zeal all for their university and not for their class, and with their intimacies bounded rather by the gates of their college than by the doors of their society. At Heidelberg, too, though the society system exists, the common residence in a university building, which seems to give it half its charm is wanting, and the spirit which animates the bachannalian revelry of a German "kommers" is unsectarian in the broadest sense of the word. And in France, in the acceptation of the term on this side of the water, there are no universities at all; the *College Bourbon*, the mental training ground for aristocratic young France, is little more than a public school, while the University of Paris affords only an advanced education in professional or scientific subjects. No, the likeness of an American university, if found any where, is to be found in Canada; and even here, as one will see by a perusal of the work before us, the difference is great indeed.

The Secret Society System, as we gather from our author, is the very pith and marrow of Yale institutions. In a book of seven hundred and six pages he devotes no less than one hundred and eighty-six to a record of the foundation and membership of, and the popular traditions concerning, the secret societies of Yale. Of these, at the time of writing, there appear to have been nine, besides numerous others which had in the past appeared and disappeared fitfully. These societies are not general college societies, but are confined to particular classes. In the junior year there are three, in the other years two in each. Upon his admission to these societies seems to depend, in a great measure, the course which a man will pursue in college. An entrance to some of them—notably to those in the senior year, where the membership is limited, is one of the highest social honours which the undergraduate can obtain. It would be presumptuous of us, with the very slight information which we possess on the subject, to criticize the working of the system at Yale. Here we are confident that societies whose membership is avowed and which are confined to particular years, could obtain no foothold. There may be secret societies among us,—indeed it is frequently stated that there are such; but if so, their objects, their membership, and even their names, are unknown to the uninitiated. Whatever influence they may possess is not exerted openly, and if college elections or college institutions are controlled by them, their movements are so cautious that the movers cannot be detected.

We regret that our space is too limited to allow us to notice more than two other customs which we believe Yale shares in company with many other universities (for Yale, though calling herself a college is in the American sense of the term really a university) on the other side of the line of 45°. We refer to the exercises at Commencement, and to the post-graduate reunions celebrated by members of the same classes. The pleasure which we personally would feel at seeing these institutions adopted at McGill, would, we are confident, be shared by every man who has the interest of the old University at heart. At present, the only share in the Convocation which the newly-fledged graduate possesses is in the delivery of the valedictory, which, however admirably it may be written, is scarcely a sufficient part for the graduating class to take in the ceremonies, We believe that could any system of class exercises for Convocation be fixed upon, they would receive the hearty approbation of the Faculty, and would introduce upon the occasion a feature which is now very conspicuous by its absence. The class re-unions, too, could easily be introduced here, and if '74—by far the most popular and powerful class we have had in McGill for many a day—would take the matter in hand, it might be accomplished without more delay.

But we fear that we have made "Four Years at Yale" but a peg upon which to hang our opinions—a fate which the book certainly does not deserve. Though the writer makes no great pretence of authorship, he has accomplished his task in a most satisfactory manner. His style is good and clear throughout, there has been no subject connected with Yale with which he has feared to deal, nor any detail, however small, which has escaped his attention, and in a most painstaking and correct record of life at one of the greatest American universities, he has done a labour of love in a manner which, in after life, he may well look back upon with pride. Were the book but just published, we should have great pleasure in prophesying for it the very large circulation, which, if merit be a criterion, it must already have obtained.

ROWING AND ATHLETIC ANNUAL FOR 1874. By Mr. James Watson, ex-Secretary of the National Amateur Association. [New-York, 3 Park Row.]

We certainly cannot complain of any scarcity of sporting literature published in this age, but as being the first Annual which we have seen as the work of a gentleman on this side of the water, we had peculiar pleasure in receiving from Mr. Watson a copy of this book. It is a thoroughly practical work from beginning to end in every sense of the word, and, as is well observed by the author in his preface, a record of races is of little value without the addition of a "Competitors' Index," which is certainly of immense help in case of wishing to find out the performances of any man during the last season, and however well one may fancy he is up on the subject, there will be few found to say they have not picked up something they had not sufficiently understood before, after a perusal of this work. We notice also several pages devoted to Canadian meetings, and among them is placed a full record of our athletic sports last fall. The seven chapters of "Hints on Athletics" are especially deserving of notice, giving as they do in a most concise manner, an account of everything connected with starting and pulling off athletic meetings, and also most practical hints as to training, form, &c.

The volume is arranged with due regard to order, and the compilation deserves warm support, as no one could have executed it better than Mr. Watson has done; in it we also find a list of the best performances, both amateur and professional, the only authentic records published since 1872. It is excellently written throughout, having much good reading in it, with also the merit of strict impartiality, and we can most heartily recommend it as the standard American authority.

MANUAL OF PHYSIOLOGY, for the use of Students. By J. Fulton, M.D., M.R.C.S. and M.R.C.P., London, Eng., Professor of Physiology and Sanitary Science, Trinity College Medical School, Toronto.

Here is a "*rara avis*." With all our medical men in Canada, we can boast of few authors. Dr. Fulton presents us with a compendium of the science of Physiology, written in a style clear and concise, indicating the author's thorough knowledge of his subject. We can find in it no information that can be passed over as unnecessary, while its contents include all the knowledge of Physiology required by the medical student. A careful perusal of it, will, for the terror-stricken Primary candidate, mitigate the horrors of the much-dreaded "Oral Examination."

To the practitioner is afforded an accurate book of reference. With it in his library he can settle any little doubt arising in his mind when reading the advanced authors. We can also recommend its use in colleges and universities; inasmuch as it embraces the science in a manner sufficiently general to form a part of a liberal education. On one point, however, fault is to be found with it—that too, to the medical student one of importance, viz., the price; compared to the value attached to the standard works of Huxley, Carpenter, Marshall, Kirke, &c., the charge is enormous.

We sincerely hope that Dr. Fulton's literary labours are not at a close. A few more such manuals on collateral subjects, will, in no inconsiderable degree, remove some of the countless difficulties of Medical Study.

CHART OF THE CRANIAL NERVES, for use of students. This is from the same author as the Physiology above mentioned. We cannot speak of it in the same spirit. It consists of a tabulation of the origin, course, &c., &c., of those "dreadful cranial nerves." Such a table is nowadays unnecessary, since the modern works on Anatomy describe these organs with sufficient accuracy and conciseness. We cannot avoid remarking, *en passant*, the absurdity of selling at half a dollar per copy a publication which intrinsically is of the value of a theatrical play bill, and which in its production displays as much of an intellectual effort as would be required for the authorship of an enlarged edition of the multiplication table.

Convocation.

The Annual Convocation in Law and Medicine took place on March 30th. There was a large attendance. We are unable to give more than a summary of the proceedings and the names of the prizemen.

In Medecine the students are 130 in number, the graduating class being 31, J. D. Cline, B.A., winning the Holmes' medals for highest marks in both primary and final examinations. The following were deserving honourable mention :—Cameron, (final prizeman), Sinclair, Molson, Mines, Ritchie, and Sutherland.

The primary prize was won by S. J. Trustall, B.A., the honour men being Benson, Hannington, Burland, Bain, Scott Brossard and Langlois. Thirty-three men passed the primary examination.

In Law, the number of men attending lectures was fifty. Fifteen graduated with the degree of B.C.L., D. R. W. Hodge B.A., winning the Torrance medal. Messrs. Hurd and Greenshields were first, in the second and first years respectively.

Dr. Mines read the Valedictory in Medicine, Mr. Hackett, B.C.L., in Law, and the graduating classes were addressed by Dr. Ross and Prof. Doutre.

We are indebted to the Montreal *Gazette* for the following report of a part of the Vice-Chancellor's remarks on this occasion :—

Ladies and Gentlemen,—The occasion of our present meeting is always one of the most pleasing and important in the course of the educational year, and in this instance is certainly not less interesting than usual, either in the number of young men going forth to enter on important professional work, or in the matter which has been brought under their notice with reference to their course in life. We wish them, and all who have graduated before them, God-speed and all blessing to themselves and others in their professional career. The past year has stricken from our small roll of governors and officers two venerable names. Mr. T. B. Anderson was one of the original band of earnest and public spirited men, leaders in the Protestant community of Montreal, who concieved and executed the noble intention of rescuing the McGill endowment from the dilapidated condition into which it had fallen, and establishing on a firm basis a University in Montreal. In the twenty-one years which have elapsed since that resolve was formed, though the University may be said to have merely grown from infancy till it has attained to its majority, how many young men have had occasion to be thankful for the benefits it has conferred, and how many are already occupying important positions of public and professional usefulness? Dr. Smallwood has also passed away from among us, and although his connection with the work of instruction in the college was neccessarily very small, yet his work as an observer and writer in meteorology and kindred subjects has left its mark in our Canadian Science. At a time when little public attention was given to meteorology, before the Governments of Britain, of the United States and of Canada had been stirred up to make weather signals, at least a portion of the work of National Departments,he had alone and unaided established his observatory at St. Martins, and was making careful observations with instruments some of which were constructed by his own hands. One feature in his character which deserves special mention was that sympathy with the popular desire for information which prompted him at all times freely and fully to communicate through the public press anything he had learned respecting any rare or curious phenomenon, and he was thus, to a large extent, a popular educator in the subjects to which he had devoted himself. The example of those who have departed is eloquent in council to those who are entering on life ; and though in the keen struggle for professional success which now prevails it would perhaps scarcely be wise to advise our graduates in law and medicine to leave the narrow walk of ordering professional work, it may be well to remind them that there are collateral avenues to usefulness and fame, which, as our country grows more and more, must become more numerous and promising. One of these I may specially mention as connected with both medicine and law, the great and growing subject of public Hygiene, including all that relates to the preservation of health and life, whether in connection with external conditions, physiological habit, social condition or legal enactment—a subject which in some of its branches is already provided for, at least by an extra-academical course, in our Faculty of Medicine. Boasting of the salubrity of our climate, and of the rapid growth of our towns and villages, we have thought too little of the conditions necessary for the healthy life of large aggregations of human beings. The growing prevalence of epidemic and endemic diseases, and the large bills of mortality, warn us that such neglect can be persisted in no longer. If we are to preserve any reputation for the healthiness of the Canadian climate, and to prevent our beautiful cities from becoming whited sepulchres, all that concerns drainage, scavenging, pure water, ventilation, and generally the possession of healthy houses for the people, and the removal or destruction of the insidious and often microscopic causes of disease must recieve a scientific and practical attention. We need not even have public parks when the poor are being destroyed in pestilential houses within sight of them. Have we not young men to grapple with these evils in a spirit of strong and vigorous determination, and have we not older men to aid with their advice and influence, and to give out of their accumulated wealth, the means necessary to agitate this matter, until it shall force itself upon the attentton of the public, the City Corporation, and the Provincial and general Governments? The subject is one not foreign to our present meeting. It is one in which professional workers in law and medicine must take a lead, and it is one that has a bearing on education. Healthy mental life cannot exist without bodily soundness. Unfavourable sanitary conditions beget a low intellectual and moral tone in society. The Student is exposed to injury as well as others ; and if our cities acquire a reputation for unhealthiness it may tend to repel young men from educational advantages which in these alone can be adequately provided. I must say, however, that within the last twenty years the mortality among the Students attending the University has been very small, and that though last winter has been considered unhealthy, very few of our Students have suffered from illness, an exemption which, while, no doubt, connected with regular habits of life, is also a reason for much thankfulness to God. I hope, however, that not only will our summer course of lectures on Hygiene by Dr. Roddick, be largely attended, but that a movement will be at once begun to give the principles of the subject thorough and practical effect.

The Chairman, Hon. Mr. Justice Dunkin, said he observed no place on the programme for a speech by the Chancellor, whose place he had been unexpectedly called upon to fill. He could not, however, allow the occasion to pass without saying a few words applicable to the business of the meeting. The duty of the Governors was to look after the finances, and to promote the prosperity of the University. The extent to which they had succeeded in this duty was largely owing to the generous spirit of a few men citizens of Montreal, who had devoted a portion of their wealth to the needs of the University. And at the present moment McGill was forced to look wholly to private munificence for support, and if the University was not to go back, it must be placed in possession of largely increased means. The Faculty of Arts alone was even passably well provided for by endowments, while the Faculties of Law and Medicine were comparatively neglected. It was true that the zeal of gentlemen who had given their time for a miserable and paltry remuneration had to some extent supplied the lack of means, but even these gentlemen, well as they had done their work, would probably admit that they might have done it better had they been enabled to devote themselves more uninterruptedly to it. The earnest practice of the profession of the law did not tend to produce teachers of the highest powers—men in advance of the practice and the time, and skilled in enunciating the great principles of the science. He urged the importance of the Law Faculty receiving such support by endowment as to enable some distinguished professional men to devote themselves exclusively to the work of professors. Such men, of course, could not be got without money. He hoped therefore, that an effort would be made in this direction. and he also urged a more liberal support of the University by the public at large, by donations to the Library and in other ways.

The proceedings were brought to a close by the Benediction, pronounced by the Rev Dr. Jenkins.

Personals.

We regret to have to announce that E. M. Taylor of the Senior Class, has withdrawn from his studies on account of failing eye-sight.

Mr. G. T. Kennedy, B.A., '72, has been appointed to a chair in Acadia College, Nova Scotia. Mr. Kennedy will, we have no doubt, give every satisfaction, and he carries with him our best wishes for his success.

Messrs. Cline and Cameron, '74 (Medicine), are candidates for the position of Assistant House Surgeon at the Montreal General Hospital.

The Birds of Montreal and Vicinity.

Paper V.

Sub-order: Strisores.

Family: Cypselidæ. The Swifts.

Genus: Chætura. Stephens.

Chimney Swallow (*Chætura pelasgia*, Stephens), American Swift; *Hirondelle de cheminée*. Length about 4½ inches. Wings sharp and narrow, each about 5 inches long, extending, when closed, about 1½ inches beyond the tail. Fibrils at ends of tail feathers worn away, due very probably to the habits of the bird, leaving the shafts of each feather projecting beyond, about one-quarter of an inch. General colour, blackish brown, with a greenish tinge. Throat of a lighter shade. Bill black, broad and short, and decurved. Mouth large, the width of the head; legs and feet blackish. This species occasionally builds its nest in old disused chimneys, whence the name; the nest, which is constructed of small pieces of twigs fastened together by a glue-like material, is attached to the side of the chimney by the same substance, the birds of this family having a great development of the salivary glands, by means of which they are capable of secreting large quantities of gelatine, which, in addition to being serviceable in constructing their nests, is no doubt also of great use in capturing their insect prey.

These birds make their appearance as soon as warm weather begins, and remain only for a short time, departing for a warmer climate before the close of the summer. This migratory habit and also the twittering sound which these birds make, have been the subject of notice from the earliest times to the present. Among sacred writers may be mentioned Isaiah and Jeremiah. Later Cicero moralizes on their habits, stating that "as swallows are present with us in summer, but are gone in winter, so false friends attend us in the sunshine of prosperity, but in the winter of affliction they all flee away." In ancient times among the boys of Rhodes, it was customary in the month of Boedromion, to sing the chelidonisma, or swallow song, an old popular song at the return of the swallows, and afterwards go about begging. It is stated that a similar song is still popular in Greece. Occasionally, owing to the weather being unusually warm, a swallow makes its appearance before the regular time, or before the summer has fairly set in. This has given rise to a number of similar proverbs, current among different nations, among which may be mentioned the following, taken from a note in White's Natural History of Selborne. The French have "*Une hirondelle ne fait pas le printemps*," the Germans, "*Eine schwalbe bemacht keinen Fruhling*;" the Dutch, "*Een swalaw maak geen zomer*;" the Italians, "*Una rodine non fa primevera*;" the Swedes, "*En svala gor ingen sommar*;" which may be all literally translated by the English proverb "*One swallow do h not make a summer.*" This bird is also the subject of the well-known beautiful lines beginning with "When the swallows homeward fly," set to equally sweet music, the notes of which are almost expressive of the flight peculiar to the swallow tribe.

Family: Caprimulgidæ. The Goatsuckers.

Sub-family: Caprimulginæ.

Genus: Chordeiles. Swainson.

Night Hawk, { *Chordeiles popetué*,—Vieillot, } Bull-bat;
{ " *Virginianus*, C. } Night Jar;
Long winged Goatsucker; Mosquito Hawk; *Engoulement popetué; Mangeur de moringouin.*

"Male above, mottled with black, brown, grey and tawny, the former in excess. A white V shaped mark on the throat; behind this a collar of pale rufous blotches, and another on the breast, of greyish mottling. Under parts banded transversely with dull yellowish or reddish white and brown. Wing quills quite uniformly brown. The five outer primaries with a white blotch midway between their base and tip. Tail with a terminal white patch. Length about 9 inches; wing about 8; tail 5. Female without the white patch on tail, the white of the throat mixed with reddish."

This is quite a common bird; though seldom seen distinctly, it may be often heard in the summer evenings about dusk as it flies about the city, emitting its peculiar cry, a sort of combination of a hum and whistle.

Sub-order: Clamatores.

Family: Alcedinidæ. Kingfishers.

"The North American species of Kingfishers belong to the sub-family Cerylinæ, characterized by the crested head and the plumage varying with sex and age.

Genus: Ceryle. Boie.

This genus is distinguished from the typical Alcedo (confined to the Old World) by the longer tail, an indented groove on each side the culmen, inner toe much longer than the hinder, instead of equal, &c. Includes two types, *Megaceryle* and Chloroceryle."

Belted Kingfisher, (*Ceryle alcyon*, Boie,) *Martin-pecheur.* Length about 9½ inches; girth about 8 inches. Upper parts greyish blue; head with a large crest of same colour; in front and below each eye white.

Primaries dark, spotted or barred with white in the middle and tipped with white. Secondaries and tail feathers, shafts dark; edges and ends white. Throat and collar (nearly round neck) white. Breast of male with a dark greyish-blue band, mixed with reddish brown. Under side of wings and abdomen white, with a reddish-brown band or belt extending across the latter in the male; under part of female is nearly all white. Legs and feet stout and strong; bill blackish, very large and strong, about 2 inches in length. This is one of our handsomest birds, and usually sits perched on a branch extending over water, about 8 or 10 feet above the surface, where it remains quietly watching for the appearance of some small member of the fish tribe, at the sight of which it gives a quick plunge almost straight down after its prey, and rises in as straight a line, or as Cowper expresses it,

"Thus lovely halcyons dive into the main,
Then show far off their shining plumes again."

This bird may be met with in the neighbourhood of Rivière St. Pierre, and generally along the side of the river by the Lower Lachine Road, Aqueduct, and also about the artificial ponds in private gardens about the Mountain, where I am told, it is a source of considerable annoyance on account of its depopulating or destroying the small fish which have been placed in these ponds.

Family: Colopterid.æ. The Flycatchers.

General characteristic, bill variously shaped, but with end of upper mandible usually bent down.

Sub-family: Tyrannin.æ. Tyrant Flycatchers.

Genus: Tyrannus. Cuvier.

King Bird (*Tyrannus Carolinensis*, Baird), *Tri-Tri* Bee Martin. Length about 7 inches. Colour, above blackish brown, with a narrow patch of orange on the crown in the male; same patch in the female light yellow. Wing feathers slightly bordered with white; tail feathers broadly tipped with white. Under parts greyish-white. Bill long, broad at base, black; legs and feet also black.

Genus: Myiarchus. Cabanis.

Great Crested Flycatcher (*Myiarchus crinitus*, Cabanis). Length about 7¼ inches; girth about 5½ inches. Head and back greenish-brown, with crest on the head of same colour. Primaries and tail feathers dark brown, with the inner fibrils of tail, and outer edges of the middle wing, feathers of a lighter shade. Secondaries and wing coverts also dark brown, but bordered with yellowish white. Throat and breast greyish brown; abdomen yellow. Bill large, black; legs and feet also black.

Genus: Sayornis. Bonaparte.

Pewee (*Sayornis fuscus*, Bonaparte). Phœbe-bird. Length about 5½ inches. Colour above light brown, extending partly round the body; beneath greyish-white. Bill strong, dark at tip; yellowish at base; legs and feet black.

This is a common bird, and may be recognized by the cry *pe-wee*.

Genus: CONTOPUS. Cabanis.

SHORT-LEGGED PEWEE (*Contopus Richardsonii*, Baird). Coues considers this species as only a variety of the Wood Pewee (*Contopus virens*, Cabinis). It closely resembles the previous species (*Sayornis fuscus*), the principal difference being in the smaller size, and also the more yellowish-white colour of the throat, of the bird under consideration. Under parts, a mixture of gray and yellowish-white feathers. Legs slender.

Length about 5 inches. The present species appears more towards the close of the summer, and utters the cry *pe-wit*, while the preceding species appears early in the season and utters the cry *pe-wee*.

Sub-order: OSCINES. Singing Birds.

Larynx provided with a peculiar muscular apparatus for singing, composed of five pairs of muscles.

Family: TURDIDÆ.

Sub-family: TURDINÆ.

Genus: TURDUS. Linnæus.

WOOD THRUSH (*Turdus mustelinus*, Gmelin). *Grive des bois;* La Flut. This species is quite stout in form. Rufous brown above, much brightest towards the head, becoming olivaceous on the tail; pure white beneath, thickly spotted on the whole breast and sides with blackish. Bill distinctly notched, brown, but yellow at base beneath. Legs yellow. Tail feathers acuminate, even or very slightly rounded laterally. The third and fourth quills are the longest. Length about 7¼ inches.

WILSON'S THRUSH (*Turdus fuscescens*, Stephens). Tawny Thrush. Length, 5½ inches. Body full, measuring about 5 inches round, colour above reddish-brown; beneath grayish white, mottled with black on the sides of throat and breast, which is also occasionally tinged with brown. Bill yellowish black; legs long, yellow.

"AMERICAN" ROBIN, (*Turdus* (*Planesticus*) *migratorius* Linnæus). Migratory Thrush, Robin Redbreast; *Rougegorge*, or *Grive de Canada*. Length about 8¼ inches; girth about 7 inches. Colour, above dark brown; throat streaked white and black; breast and abdomen brownish-red, with edges of most of the feathers tipped with white; hind part of body and under tail white and gray. Bill and legs strong, and blackish yellow.

Genus: SIALIA. Swainson.

"EASTERN" BLUE-BIRD (*Sialia sialis*, Linnæus). Red breasted Blue-bird or Robin. Length about 6 inches; girth about 5 inches. Colour, upper parts of male blue, mixed with black; of female dark brown on head, neck and wings; tail and tail coverts dark blue; throat and breast of both reddish-brown; abdomen dark gray. Bill and legs black.

Sub-family; REGULINÆ. Kinglets.

Genus: REGULUS. Cuvier.

RUBY-CROWNED WREN or KINGLET (*Regulus caledulus*, Lichtenstein). Length about 3¼ inches. Distinguishing feature of male bird, is the scarlet patch on the crown. Prevailing colour above, on head, back and tail coverts green; wing and tail feathers blackish, and bordered with green; under parts greenish gray. Bill small, black; legs also blackish.

GOLDEN-CROWNED WREN, (*Regulus satrapa*, Lichtenstein.) Golden-crested Wren. Length about 3 inches. General colour similar to the preceding, Patch or crest on the crown of male, golden yellow; of female, yellowish-green. Bill and legs like preceding.

Family: SYLVICOLIDÆ. American Warblers.

Sub-family: MOTACILLINÆ.

Genus: ANTHUS. Bechstein.

TIT LARK (*Anthus ludovicianus*, Lichtenstein). Pipit, Brown Lark; Wagtail. Length about 5¼ inches. Upper parts blackish brown, with a greenish tinge on head and back. Edges of outer tail feathers white. Under parts gray; breast with a brownish tinge, and also mottled with black Bill and legs black and yellow; *hind claw* nearly three times the length of the front ones.

Sub-family: SYLVICOLINÆ. Warblers.

Section: MNIOTILTEÆ.

Genus: MNIOTILTA. Vieillot.

BLACK AND WHITE CREEPER (*Mniotilta varia*, Vieillot). Length about 4 inches. Colour above and below black streaked with white; black prevailing above, white beneath. Bill and legs blackish yellow.

Section: GEOTHLYPEÆ.

Genus: GEOTHLYPIS. Cabanis.

MARYLAND YELLOW-THROAT (*Geothlypis trichas*, Linnæus.) Maryland Ground Warbler. Length about 3¼ inches. Colour above dark yellowish green; black in the forehead and around the eyes. Throat and breast yellow; sides of body and under tail coverts dark green. Bill and legs blackish yellow.

MOURNING GROUND WARBLER (*Geothlypis philadelphia*, Wilson). Length 4¼ inches. Colour of male head and throat dark gray; black on breast; back, wings and tail dark green; abdomen and under tail coverts bright yellow. Female, similar colours but lighter shades. Bill, legs and feet yellowish white.

Section: VERMIVOREÆ.

Genus: HELMINTHOPHAGA. Cabanis.

NASHVILLE (SWAMP) WARBLER (*Helminthophaga rufícapilla*, Wilson). Length 4 inches. Head and sides of neck dark grayish brown; head with a small reddish brown patch on the crown. Primaries and tail greenish brown. Back and tail coverts green. Under parts yellow. Female, lighter shades. Bill, legs and feet dark yellowish white.

TENNESSEE WARBLER, (*Helminthophaga peregrina*, Wilson). "Total length 4¼ inches. Top and sides of the head and neck ash gray; rest of upper parts olive green. Beneath dull white, faintly tinged with yellow, especially on the sides. Eyelids and a stripe over the eye whitish; a dark line from the eye to the bill. Outer tail feathers with a white spot along the inner edge near the tip. Female with the ash of the head less conspicuous; the under parts more tinged with olive yellow."

Section: SYLVICOLEÆ.

Genus: SEIURUS. Swainson.

GOLDEN-CROWNED THRUSH or WAGTAIL (*Seiurus aurocapillus*, Latham). Oven Bird. Length 5 inches. About the eyes and upper parts dark green. From base of upper mandible a yellowish brown streak runs over the centre of crown, on each side of which there is a narrow black streak. Centre of throat light gray, with a narrow black streak on each side; breast and abdomen light gray spotted with black, especially on the breast. Bill, legs and feet yellowish.

Genus: DENDROICA. Gray.

"The colouration of the tail feathers is a good clue to this genus; for all the species, excepting *æstiva* (which are edged with yellow) and its exotic conspecies or varieties, have the tail feathers at all ages blotched or edged with white."

BLACK-THROATED GREEN WARBLER, (*Dendroica virens*, Linnæus.) Length 4 inches. Crown, back and tail coverts green mixed with black. Forehead and about the eyes yellow. Wings black with 2 crossbars of white. Central tail feathers black; lateral tail feathers, outer fibrils black, inner fibrils white. Throat and breast black; abdomen white and yellow; sides of body black and white. Bill and legs black.

BLACK-THROATED BLUE WARBLER. (*Dendroica Canadensis*, Latham. / *Dendroica Cærulescens*, C.,)

Length 4¼ inches. Crown, back, wing coverts, and central tail feathers blackish blue; primaries dark brown; side tail feathers dark brown, with a white spot on the inner fibrils. Throat, about the eyes and sides of body black; breast and abdomen white. Bill blackish; legs black and yellow.

YELLOW-CROWNED WARBLER, (*Dendroica coronata*, Linnæus). Yellow-rumped Warbler; Myrtle Bird. Length 4¼ inches, Crown, tail coverts, sides and hind under part of body, yellow. Forehead, above the eyes, neck and back a mixture of black and dark gray. Wings and tail dark brown, two white bars on each wing, and a white spot on the inner fibrils of side tail feathers. Throat and abdomen light gray; breast black mixed with white. Bill and legs black.

BLACKBURNIAN WARBLER (*Dendroica Blackburniæ*, Gmelin). Hemlock Warbler. Length 4 inches. Crown, above the eyes, side of neck ¼ inch behind each eye and down on the throat and breast, orange; other parts of head about the eyes and neck black; back and wing coverts black mixed slightly with white, more especially on wing coverts. Primaries and central tail feathers blackish-brown; lateral tail feathers, outer fibrils blackish brown, inner fibrils white. Abdomen reddish white mixed with black on the sides of body.

This species is considered by many to be the handsomest of the warblers.

BAY-BREASTED WARBLER (*Dendroica castanea*, Wilson.) Autumnal Warbler. Length about 4¼ inches. Crown, throat, breast and sides of body reddish brown. Around base of upper mandible and about the eyes, black. Back dark green streaked with black. Wings and tail feathers dark brown, with two patches of white on wing coverts and a broad white patch on each side of the neck, and a white spot on inner fibrils of lateral tail feathers. Centre of under part of body yellowish white. Bill and legs blackish.

PINE-CREEPING WARBLER, (*Dendroica pinus*, Wilson). Pine Warbler. Length 4 inches. Upper parts brown, darker on primaries and central tail feathers; inner fibrils of lateral tail feathers with a white spot. Upper tail coverts greenish brown. Under parts yellowish brown, more yellow on the throat. Bill black; legs yellow.

CHESTNUT-SIDED WARBLER (*Dendroica Pennsylvanica*, Latham). Length 4 inches. Crown yellow; back a mixture of black, yellow, and white, black predominating. Wing feathers brown, edged with greenish yellow; wing coverts black, bordered with yellowish white. Tail brown at base and outer edges, rest white. *Sides of body chestnut brown*, mixed with white. Behind the eyes, throat, and under parts white. Bill and legs dark yellow.

BLACK POLL WARBLER (*Dendroica striata*, Latham). Length 4¾ inches. Male, *whole top of head black;* below the eyes white, partly extending round the neck. Back black mixed with dark green; wing and tail feathers brown, edged and tipped with white on secondaries and wing coverts, and white spotted on inner end fibrils of tail feathers. Under parts gray, mixed with black on sides of body. Bill dark; legs yellow. Female—head and back, dark green and black; wing brown bordered with yellowish white, and tail, bill and legs as in male.

"BLUE-EYED" YELLOW WARBLER (*Dendroica æstiva*, Latham). Yellow Poll; Golden Warbler; Summer Yellowbird. Length about 4 inches. Male—head and under parts, bright yellow; breast streaked with brown; back greenish yellow; wings and tail brown bordered with yellow. Bill dark; legs yellow. Female—green on head and back; wings and tail as in male; under parts light yellow.

BLACK AND YELLOW WARBLER (*Dendroica maculosa*, Latham). Magnolia Warbler. Length about 3¾ inches. Male, top of head, grayish black; back black, mixed with green; wings and tail brown, tail feathers with a white spot on middle, inner fibrils, forming a sort of band across the middle of tail, wing coverts tipped with white. Tail coverts and under parts yellow, spotted with black on the breast and sides of body. Bill blackish; legs yellow. Female—similar but duller, and more green on head, &c.

Section: SETOPHAGEÆ. Flycatcher Warblers.

Genus: MYIODIOCTES. Audubon.

"Bill depressed, broader than high at base, notched and usually hooked at tip, and furnished with long stiff bristles that reach half way or more from the nostris to the end of the bill. Wing with only 9 primaries and very little longer than the tail.

CANADA FLYCATCHER (*Myiodioctes Canadensis*, Audubon). Length 4¼ inches. Back black; wings and tail brown. Throat and underparts yellow, spotted with black. Black on crown and below each eye, running down towards the breast. Bill dark; legs yellow.

Genus: SETOPHAGA. Swainson.

RED START (*Setophaga ruticilla*, Linnæus). Length about 4 inches. Male—head, back, wing coverts, and breast black, slightly mixed with orange streaks on the back. Primaries, upper tail coverts, and central and tips of lateral tail feathers, dark brown; base of lateral tail feathers, borders of secondaries, and sides of body, orange; abdomen gray. Bill black, legs dark. Female—top of head, back, and upper tail coverts greenish gray; base of lateral tail feathers, secondaries, sides of body, and partly on breast, yellow. Central, and tips of lateral tail feathers and primaries, brown. Throat and abdomen gray. Bill and legs dark.

Sub-family: TANAGRINÆ. Tanagers.

Genus: PYRANGA. Vieillot.

Bill subconical, notched at tip, and toothed or lobed near the middle of upper mandible.

SCARLET TANAGER (*Pyranga rubra*, Linnæus). Length 6¼ inches. Male—entire body except wings and long tail feathers, scarlet; wing coverts, and long tail feathers black; primaries dark brown. Bill large, dark yellow; legs also dark yellow. "Female—olive green above, yellowish beneath; wing and tail feathers brown, edged with olive. Young males are coloured like the females, but generally exhibit more or less of red feathers among the greenish ones."

J. M. Lemoine, Esq., of Quebec, states that this bird is known among the French-Canadians as "*Le Roi des Oiseaux.*"

Family: HIRUNDINIDÆ. Swallows.

Sub-family: HIRUNDININÆ.

Genus: HIRUNDO. Linnæus.

WHITE-BELLIED SWALLOW { *Hirundo bicolor*, Vieillot. / *Tachycineta* " C. }

Length about 5 inches.

Male, upper parts brownish-black, with bluish-green reflections; wings very long, first and second primaries longest, other 7 rapidly diminishing in length; tail forked; under parts white. Bill short, broad, and black, opening of mouth extending below the eyes; legs blackish-yellow. Female and young similar, colours dullert This is one of our commonest birds, during the hot summer months, taking up its residence in one or other of the boxes usually fixed up for that purpose about the dwelling houses, and may be seen almost always on the wing.

The remarks made concerning the flight and the time of appearing of the chimney swallow, might, with equal, if not more propriety, be applied to this species.

Genus: COTYLE. Boie.

BANK SWALLOW (*Cotyle riparia*, Linnæus). Sand Martin; *Hirondelle de rivage*. Length 4¾ inches. Color above some specimens grayish brown, others gray; beneath white. Bill of dark specimens black, of others yellow; legs of both varieties yellow. This bird occurs in great numbers, in summer, building its nest in the sand banks along the Upper Lachine Road. Some of them, probably the young birds, are said to winter in the above locality.

Family: { BOMBYCILLIDÆ. Baird. / AMPELLIDÆ. C. } Waxwings.

Sub-Family: { BOMBYCILLINÆ. Baird. / AMPELINÆ. C. }

Genus: AMPELIS. Linnæus.

BLACK-THROATED WAX WING (*Ampelis garrulus*. Linnæus). cohemian Chatterer or Waxwing. Length 7 inches; girth 6¼ inches. General colour of head and crest, back, wing coverts and breast, light reddish gray, more red on forehead, shading into the large crest, also redder about

the sides. Under tail coverts reddish brown. About the base of bill, around the eyes and throat, black. Ends of wing coverts white. Secondaries with peculiar small, oval, red, wax-like appendages; primaries black with a white spot on outer end fibril. Upper tail coverts dark gray shading into black towards end of tail, which is broadly tipped with yellow. Abdomen gray. Bill and legs black. The young birds are similar but have not the wax-like appendages on the wings, and the yellow border of tail is lighter. This is a winter bird.

CEDAR BIRD (*Ampelis cedrorum*. Vieillot). Carolina Waxwing; Cherry Bird; *Chanteur du cèdre*. Length 6 inches; girth 5 inches. This species closely resembles the preceding. It is, however, not much more than half the size; there is also no white on the wings; the abdomen is light yellow and the under tail coverts white. Young birds have not the wax-like appendages.

This species occurs about here in summer.

Family: LANIIDÆ. Shrikes.

Sub-Family: LANIINÆ. True Shrikes.

Genus: COLLYRIO. Moehring.

GREAT NORTHERN SHRIKE (*Collyroi borealis*. Vieillot). Length 9 inches; girth 6 inches and tail 4 inches. Male, head, back and wings coverts, gray. Behind the eyes, wings and tail, dark brown, blacker on the tail, which has also the outer edges and ends of side feathers, bordered with white, ends of wing feathers slightly bordered with white. Upper and under tail coverts white. Throat, breast and abdomen light gray.

Bill strong; upper mandible hooked or curved down at the end, near which there is a small tooth on each side, fitting over the under mandible when closed; the under mandible has, about the middle, a small lobe or tooth projecting upwards, and corresponding to an indentation of upper mandible. Bill and legs black.

Immature or young bird has more of a dark brown on the head, back, and wing coverts. The upper tail coverts, the throat and underparts are also darker, and crossed or barred with narrow black bars. The whole appearance of this bird, the hook shaped and denticulated bill, and especially with the markings or bars on underparts of immature birds, is very much like that of a small hawk, and the habits of this species of impaling its victims, in the shape of other small birds on a thorn, and then leizurely feasting itself, certainly does not lessen the resemblance, and affords a sufficient excuse for bestowing upon it the name of *Butcher-bird*, by which it is also known.

Sub-family: VIREONINÆ. Vireos, or Geenlets.

Genus: VIREO. Vieillot.

RED-EYED VIREO (*Vireo olivaceus*, Linn). Red-eyed Flycatcher. Length 5 inches. Upper parts greenish brown; beneath light gray. Bill and legs dark yellow.

WARBLING VIREO (*Vireo gilvus*, Vieillot). Warbling Flycatcher, Length 4 inches. Head, back, and wing coverts greenish brown. Wings and tail brown. Underparts white, yellowish on the sides. Bill and legs blackish.

WHITE-EYED VIREO (*Vireo noveboracensis*, Gmelin). Green Flycatcher. "About 5 inches long. Above bright olive green; space around the eyes and extending to the bill greenish yellow. Beneath white; the sides of the breast and body bright yellow. Two broad yellowish wing bars; inner secondaries edged with the same. Bill and feet blackish grey. Eyes white."

Family: LIOTRICHIDÆ.

Sub-family: MIMINÆ. "Mocking Thrushes."

Genus: MIMUS. Boie.

CAT BIRD (*Mimus Carolinensis*, Linnæus). Length 7½ inches; girth 5¼ inches. Crown and wings dark brown. Tail black; back and wing and tail coverts, and underparts, except under tail coverts, which is reddish-brown, grayish black, darker above than beneath. Bill and legs.

This bird is well known by its peculiar cry, resembling somewhat that produced by a cat, whence the common name.

Genus: HARPORHYNCHUS. Cabanis.

BROWN THRUSH (*Harporhynchus rufus*, Linnæus). Ferrugineus Thrush; Thrasher; Sandy Mockingbird. Length 9¼ inches; tall 5 inches. Colour—brown above; middle wing feathers tipped with white. Throat, abdomen, and under tail coverts white; breast and sides also white, but mottled with brown. Bill yellowish black; legs long and strong, yellow.

Family: TROGLODYTIDÆ. (C), Wrens.

Sub-family: TROGLODYTINÆ.

The wrens may generally be recognized by the short, full body, and rather short, broad and upturned tail.

Genus: CISTOTHORUS. Cabanis.

LONG-BILLED MARSH WREN, (*Cistothorus* (*Telmatodytes*) *palustris*, Bonaparte.) "Above clear brown, unbarred, back with a black patch containing distinct white streaks, crown brownish-black, with a white streak above the eyes; wings not noticeably barred, but outer webs (fibrils) of inner secondaries blackish; tail brown, dusky barred; below dull white, the sides with brownish tinge, and under tail coverts somewhat barred. About 5 inches long, wing about 2, and tail less. Bill ½ inch in length, barely curbed." This species is found about the swamps at Nun's Island, etc.

Genus: TROGLODYTES. Vieillot.

PARKMANN'S WREN, (*Troglodytes Parkmanni*, Audubon.) Coues consider this species only a variety of the House Wren (*Troglodytes aedon*, Vieillot.) Length 3¼ inches; tail 1½ inches.

Above, grayish brown, wings and tail barred with black; under parts gray, slightly mottled with black, in some specimens. Bill black above; legs yellow.

WINTER WREN. { *Troglodytes* (*Anorthura*) *hyemalis*, Vieillot. / *Anorthura Troglodytes*, C. }

Length about 3 inches; tail 1½ inches. Similar to proceeding species, but bulkier in body, and tail smaller.

Above, reddish-brown; wings and tail barred with black. Throat and breast very light brown; abdomen darker, barred with black. Bill blackish above; legs slender, yellow.

April, 1874. GEO. T. KENNEDY.

McGILL UNIVERSITY.

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