SPORTING INTELLIGENCE.

GATWICK PARK.

RACING. TO-DAY'S PROGRAMME AT

A number of hard-worked animals figure in Fédérale, the Ours, or the Trois Rols, little was done by the Stayers' Handicap—that is to say, hard- innkeepers for the outdoor amusement of their guests; worked considering what is usually required a prospect of the lake and mountains, to borrow Gibbon' from a racehorse, the annual average of whose appearances is probably about seven in sport under Jockev Club rules, for under the rules of the National Hunt much more is frequently seen of steeplechase horses and hurdle jumpers. Seven races do not appear a severe tax on a horse during the season, which lasts from March to the end of November; and, indeed, the thoroughbred in training has for the most part a luxurious time. Mr. J. S. Morrison's Cuffs, however, has run on 11 occasions. Beauchamp's Father Blind and Mr. Gleeson's Heath Lad on 12, and most likely they will be out again before the season closes. Mr. H. S. Goodson's Asticot, winner of the event which used to be called the Goodwood Stakes, but is now known as the Goodwood Plate, is entered, as is Mr. C. Bewicke's Mrs. Lyons. Last year in Ireland this mare ran in nine races, won seven, and was second in the other two. Brought to and meadowland in an amphitheatre of mountains

exception. when he chose to do his best, was disinclined Players with single figure handicaps are fairly numerous that Siberia has gone, Ebor seems the best. keenness was only equalled by the Montreux caddies in a generally is without features of interest.

ORDER OF RUNNING, TO-DAY. H. M. | 1 45 | Crawter Nursery Handicap 2 15 | Redhill Welter Handicap 2 45 | Gatwick Stakes Ifield Selling Plate Widow Selling Handicap Stayer's Handicap

Owing to the rebuilding of a bridge across the river Mole on the main road between Horley and Gatwick, visitors driving or motoring to Gatwick to-day and tomorrow are advised to take the Reigate-hill road to coming from the south. Or, if this is not convenient,

> THE NEWCASTLE MEETING. ORDER OF RUNNING, TO-DAY.

LONDON BETTING, MONDAY. THE CAMBRIDGESHIRE. 3 to 1 agst Cocksure II. (t. &) 20 to 1 agst The Nut (t.)

20 - 1 ---- Rhodora (t., after 100 - 7 ---- Pure Gem (o.,after 25 — 1 — - Wheatear (t.) 25 — 1 — Rodney (t.) 25 — 1 — Simonson (t.) 100 — 6 — Angelus (t.) 100 — 6 — Poor Boy (t.) 18 — 1 —— Monte Rosa (t.) 18 — 1 —— Lucus (t.) 100 --- 3 ---- Bushranger (t.) 100 --- 3 ---- Temeraire (t.)

TATTERSALL'S SALE.

The best of the lots offered for sale at Tattersall's repository yesterday were not reached until late in the afternoon, but there was very keen bidding for their

Lord Dalmeny had to go to 320 guineas before having the bay gelding Alderman knocked down to him. Sir George Bullough secured Sir Lancelot, a winner at Olympia two years in succession, for 260 guineas. The first-named was included in Mr. Sewell Rigg's draft sent | Maisey beat Mrs. Swaine by 6 and 5. from Appleby; while Sir Lancelot was the property of Mr. John Clay, who is remaining in America and is not hunting this season. Both hunters are up to a great weight, Mr. Clay having ridden 181st.; while Mr. Sewell Rigg rides 171st. Guardsman, included in the same draft, reached 290 guineas; Sunset brought in 155 guineas, and Diavolo, a brown gelding by Inferno, changed hands Rigg had the charge aggregated 1,491 guineas, an everage of nearly £174 each.

Mr. Langham Reed's stud was dispersed, the best of | holes up. the hunters being Reiver and Vandyke, sold for 64 guineas and 68 guineas respectively. Mr. A. D. MacNeill sold Togo for 90 guineas; while Mr. F. Aplin accepted an offer of 100 guiness for The Adjutant. Hercules and Peacemaker, both included in the same draft, each brought in 90 guineas. Sligo was sold for 78 guineas. Messenger realized 75 guiness, and Volunteer brought in 70 guiness. The Bude coach horses, which were sent up for sale by the Messrs. Brendon, sold fairly well, 19 of them averaging

RUGBY FOOTBALL.

CAMBRIDGE SENIORS' MATCH. than the Freshmen's match, and although combination

was lacking more good individual form was shown.

The forwards were vigorous and made good open rushes, 88-7=81; Mr. H. B. Piffard and Mrs. Money, but the scrummaging was poor, as usual in these trial games. 96-14-82. The whites were heavier forward and heeled quicker. winning by two goals and two tries to one goal and one try. The most outstanding players were J. A. Scholfield, the white three-quarter, and the white halves, A. H. Ashcroft and J. F. Sutherland. Scholfield was very member of last season's Cambridge team who is not avail- and Mr. "A. L. Bert" (9—7, 4—6, 8—6). clever with his hands, and took some difficult passes on able for the University this season. Mr. B. Hammond the run. He made several good openings, and kicked Chambers (King's) has been elected captain of the club for well together, and gave the three-quarters chances of the ensuing year. The other officials are :-- President. scoring oftener than they did. Ashcroft feinted cleverly, Mr. W. Welsh; hon. secretary, Mr. C. Pigg; assistant The best of the forwards were J. V. Fiddian, B. M. S. L. Winter; committee, Mr. E. S. Ulyat, Mr. J. McNeill, H. T. S. Morton for the colours, while C. Gimson and Mr. F. D. Morton, Mr. B. Pigg, and Mr. C. E. Stuart. W. H. Colley were most prominent for the whites. Both sides packed somewhat raggedly, which made the heeling three-quarters were disappointing, D. C. F. Burton alone | wood golf clubs. showing any pace; but they were badly fed by the centres, who stood too much bunched together and crowded each autumn meeting the annual competition for the cup other. Hemmant was the worst offender in this respect and took passes standing. H. T. Bower ran strongly on the left wing for the whites, and wanted a deal of stopping, but fine weather. Mr. S, S. Nash proved the winner of

ROYAL NAVY UNION.

The following are the fixtures of the recently-formed Royal Navy Rugby Union: -- October 28, Royal Navy and Army v. the Australians, at Portsmouth; November 18, inter-port match, Portsmouth v. Devonport, at Portsmouth; November 24, Rugby Union trial match. Royal Navy and Army v. Oxford and Cambridge Past and Present, in London; January 18, inter-port match. Chatham v. Portsmouth, at Chatham; February 10, Navy v. United Hospitals, in London; March 6, Royal Navy v. Army, at Queen's Club, West Kensington.

MONMOUTHSHIRE V. THE AUSTRALIANS. This match should have been played at Pontypool, The club's gold memento for the best scratch score was yesterday, but at the last moment it was decided that the ground was unfit for play.

THE OLYMPIC GAMES.

ASSOCIATION FOOTBALL. Permark best France (B team), at the Stadium yesterday, by nine goals to none. In so one-sided a game the Danes may have been flattered, but they played good of the game. They kept the ball low, kicked accurately, | 82-2=80. Total, 161. tackled strongly, and passed in a manner that quite bewildered their opponents. Evidence was not wanting of coaching by an English professional, very little dribbling being attempted. Never very fast, the play became slow at tunes, the Danes apparently not going their hardest when an easy victory was assured. The rather muddy decided at Newcastle yesterday, when all the leading turi seemed to trouble the Frenchmen, who were weak at sprinters, with the exception of the Australian A. To other summonses were withdrawn. the Danes.

on Thursday, at 1 and 3 p.m.

GOLF IN SWITZERLAND.

CHAMPIONSHIP MEETING AT THE MONTREUX CLUB. (FROM A CORRESPONDENT.)

Formerly, when good accommodation for man ar beast could be obtained in Switzerland at the Croi: phrase, varied by excursions on either, sufficed. Modern competition, however, has evolved new names an customs, and Excelsior, Regina, and Palace hotels supply accommodation, which, if better than that of the old inns, is no less certainly dearer for man and motor-car and golf has become a recognized institution in the land

and figures largely in hotel advertisements. Of the Swiss courses that at Samaden, thanks greatly to the care given to the greens by Dr. Patterson, is by far the best, and compares favourably with any course upon the Continent. The rest have one thing in commo -they are all beautifully situated. To mention only some; St. Moritz and Majola, at 6,000ft. above sea level amid the grey rocks of the Engadine; the platform of Montana at 5,000ft., fronting the range of the Valais Alpes stretching from the Matterhorn to the Simplon Sonnenberg, above Lucerne, with its views upon the lake; Interlaken in the Bernese Oberland; Aigle, where the Montreux course is situated, nestling among orchard England with no small reputation, she has been ablaze just now with autumn glory, all lead the golfer to the post eight times with no approach to to an admiration of his surroundings and to a forgetful-Generally, Irish horses improve when ness, where forgetfulness is necessary for his peace of trained in this country, but Mrs. Lyons is an mind, of the peculiarities of a Swiss golf course. Most these courses-Montreux and the new one at Geneva are Mr. L. Neumann's Siberia is struck out of exceptions—are summer ones, and lie fallow during the the Gatwick Stakes, for which Mr. Bendon's winter months. On the Montreux course play, although Ebor has been sent to run; and it appears sometimes interrupted by enow in winter and heat in July, general rule there is a great dearth of good forwards, but probable that he will win, though, if Mr. G. continues all the year round. The skill of the players is Faber's Bushranger were to start, he would varied. Mr. Gaw and Mr. Leslie-Smith, both of whom possibly be a source of danger. Early in the took part in the amateur championship at Sandwich last season Bushranger, known to be a good animal spring, have been playing this year in Switzerland. to try; but when a horse once wins, he some- but are outnumbered by the double-figure brigade, some times continues to do so. After invariably of whom play under handicaps of 24 and 30, the reason being beaten as a two-year-old and as a three- for this being that comparatively speaking players are Norman—the last three being members of the Mariyear-old, and starting this year badly, he won few, and on come courses handicaps are liberally awarded borough XI., which is always a powerful team. at the Bibury Club Meeting, and since then has for the encouragement of beginners. If at present Swiss taken three races, besides having been second players have not taken to golf as they have to lawn tennis, in two more. Mr. A. F. Basset's Hayden, the same cannot be said of the caddies. At Montana winner of the Kempton Park Jubilee, is engaged; last year a competition was instituted for them, in which but there he had a very light weight, and now several played with clubs of their own making. Their The two-year-old race is the Crawter Nursery, similar competition some years ago; for some of these in which, however, selling plate horses are brought in such astonishing low returns that a lecture on almost on a level with the top weight, Mr. the virtue of truth replaced the prize that they all hoped George Edwardes's Waltzertraum, and this to gain. No one, perhaps, will go to Switzerland for the need not be discussed; indeed, the card sole purpose of playing golf, but of the thousands of visitors who intend spending six months, or even less, in the country, none will regret having taken their golf

> The Swiss golf championships are played under the auspices of the Swiss Golf Association, which was founded 4 15 a few years back and is composed of affiliated golf clubs. season. The championships are not strictly speaking open events, neither the men's nor the ladies' championship could be competed. These restrictions were introduced presum-The meeting under notice, which began on October 5 and concluded on Friday last, was favoured by magnificent weather. The course, which is a 9-hole one, was similar to that of last season, including a Northern tour in good order, and in the third round of the handicap Mr. at Christmas, when they play Stafford, Bowdon, Kersal, Leslie-Smith accomplished a record by going out in 32 Western, West Derby, and Bebington, whilst matches and returning in 36. The committee of the club, com- have been arranged against Felsted, Marlborough, posed of residents in the neighbourhood, who have given Uppingham, and Cheltenham. There are also fixtures both time and money to make the club a success, and against both Universities and various college encounters. Mr. W. B. White, the hon, secretary, are all to be con-

clubs with them.

meeting. Below are given the chief results :-Swiss Championship (Men).—First Round.—Mr. W Rutherford beat Mr. W. G. Chancellor by 1 hole up. Second Round.-Mr. W. Tattersall beat Mr. J. Parrott

by 2 holes up and 1 to play; Mr. G. Leslie-Smith beat W. Rutherford by 5 and 4; Mr. G. C. Dobbs beat Mr. T. A. White by 3 and 1; Mr. W. H. P. Swaine beat Mr. P. Gouraud by 7 and 6. Third Round.—Mr. Leslie-Smith beat Mr. Tattersall by

I hole up; Mr. Dobbs beat Mr. Swaine by I hole up. and 6 in a 36 hole match.

Third Round.—Miss Salusbury beat Miss M. Maisey by at 150 guineas. The nine hunters of which Mr. Sewell 5 and 4: Miss Coombs beat Mrs. Leslie-Smith by 7 and 6.

MONTREUX CLUB EVENTS.

Match play Handicap (Men).—Final Round.—Mr. Loslie-Smith, +3, beat Mr. W. E. Dunsford (8) by 2 and 1. Coombs beat Miss Salusbury by 3 and 2. Men's Open Challenge Cup.—Final Round.—Mr. Leslie-Smith walked over; Mr. Dobbs scratched.

Miss Coombs, 86-7=79. As Miss Maisey had before won this cup on one occasion

the cup becomes her property.

CAMBRIDGE UNIVERSITY CLUB.

81 (scratch)=81: Mr. Grundy, 98-17=81. Parton, 95-10=85.

ROYAL ST. GEORGE'S CLUB.

won by Captain H. E. Hambro, with a return of 78. The details of Captain Hambro's card were :-

Out: 5, 4, 4, 5, 3, 4, 4, 3, 4=36} Home: -5, 5, 5, 6, 4, 4, 4, 5=42} 78

Captain Hambro also won the Lamb Memorial medal gold medal for the two best scratch scores at these meetings, with 80+78=158. The Eastry cup, for the best aggregate score under han-

PEDESTRIANISM.

turi seemed to trouble the Frenchmen, who were weak at sprinters, with the exception of the Australian A. B. half-back. The backs kicked hard and rarely blundered Postle, who is suffering with a strained tendon in the badly; but, without method, the defence failed completely. | leg. competed. W. Bates, Royton, 9yds. start, finished | E. Eastman, Canada, 13yds., third. The Irish champion. by Bohr, Middelboe, S. E. Nielsen (two) and Wolffhagen. Kirsop, Newcastle, 94yds., also ran. All finished in To-day the United Kingdom play Sweden. There will a bunch, inches only separating the first three men. be no match on Wednesday, both semi-finals taking place | The time was returned as a yard and a half worse than

HOCKEY. HOCKEY AT THE UNIVERSITIES.

(FROM A CORRESPONDENT.)

One of the most remarkable features of the game c hockey is the extraordinary progress that has been made looked upon as very unusual people, while only two! colleges, Balliol and Keble, had teams at all. The University team was very mediocre and produced "The Pollution of Estuaries and Tidal Waters," hardly any players for representative matches. The and contains in a collected form researches of lower organisms developing in the effluent. Oxford graduates, led by Mr. A. L. Smith, who was fundamental importance carried on by the practically the father of hockey at Oxford, used invariable authors for many years. Some of the work the effects of different trade-effluents and being fixed at 900 kilos. ably to beat the University, and this match was always has already appeared elsewhere; but much is specific chemicals on various kinds of fish. looked upon as one of the most important of the season. Now things are very different; all the colleges at Oxford here published for the first time. The whole report, the authors make carefully-considered the International Association; but the question of run one team—many of them two—and an inter-colle- is characterized by a scientific thoroughness suggestions as to the degree of sewage purification allowing detechable wheels in next year's race, and

looked to the Universities for their principal supplies. Oxford, who had a very fair team last season, will be captained by Mr. J.Y. Robinson, who is perhaps the most brilliant half that England has ever possessed. He will have the services of Mr. E. G. Maltby (goal), authors, copious reference is made to the pre- formulation and enforcement, to the Rivers Mr. M. A. Mathew and Mr. K. Raynor (half-backs), vious observations of other workers, and Boards and the Central Authority whose estaand Mr. F. G. Mirfield (forward), while Mr. C. S. Hurst-(last year's captain—will be available if required, though not actually in residence. The presence of a full halfback line means a good foundation for a team, and with some good seniors and very promising freshmen the side ought to be stronger than last season. The seniors' match was played on Wednesday last, and resulted in a very keen and even game. Mr. A. C. Freeman kept goal remarkably well, while Mr. E. Clover and Mr. Campbell appeared to be the pick of the full-backs. As a on this occasion they all showed form above the average, especially Mr. C. P. Leese, Mr. C. R. Wyer, and Mr. A. D. Ball, who formed the three insides for the Colours. The freshmen's match took place on Thursday, and there! seems to be some excellent talent, notably Mr. E. S. Lenhard, who captained Uppingham last season, Mr. A. D. Womersley, Mr. R. O. Lagden, and Mr. C. L. first match took place on Saturday against Surbiton, at Oxford, when the University won easily.

Cambridge can hardly be said to have made a start yet, so it is difficult to estimate their strength, but they have only three of last year's team left—Mr. Cox, Mr. A. F. Leighton, and Mr. J. F. Ireland. The places of Mr. L. M. Robinson, Mr. H. J. Goodwin, and Mr. E. F. Edge Partington will be very difficult to fill, and the University will have all their work cut out to keep up last season's standard, which was exceptionally high. Mr. J. F. Ireland is captain, and should have a very good chance of international honours if he continues to improve as he did last year, while Mr. A. F. Leighton is one of the most promising outside-lefts seen for many a day. Saturday the University meet Beckenham, at Cambridge, which will be a pretty severe test so early in the

The Cambridge University Wanderers and the Oxford for they are confined to members of these affiliated clubs, University Occasionals—clubs which contain the pick of and, under the rules which governed the present meeting, University hockey players past and present—are taking a conspicuous part in the encouragement of the game at the Gatwick via Poney-cross, unless, of course, they are played unless representatives of at least three clubs public schools. The former have arranged a tour from March 22 to 25, when they meet Felsted, Haileybury, they are advised to cross the railway by the bridge north ably in the interests of the clubs, but as nearly all the Cheltenham, and Wellington, while there is a fixture of Horley Station, and come round to the back of Gatwick latter are really supported by the local hotels and are not with Uppingham on February 18. They also have a clubs in the ordinary sense of the word, it is an open | Midland tour at Easter, when Rugby, Leicester, and the question whether it would not be wiser to throw these Elmley Castle Club (just étarted by General H. F. The capacity of a sewage effluent to cause a are also college fixtures, and a match against Cambridge.

> Both these clubs are doing very good work in keeping gratulated on what has proved to be a well-managed past and present University players in touch with one another, whilst the encouragement of the game at the public schools by these fixtures will do more than anything to promote its growth.

LAWN TENNIS.

THE TOURNAMENT AT QUEEN'S CLUB.

The final tie of the Men's Doubles—the only remaining match in the covered courts tournament, at Queen's Club—was decided yesterday afternoon; and there was Final Round.—Mr. Leslie-Smith beat Mr. Dobbs by 7 another surprise, for Mr. F. G. Lowe and Mr. A. H. Lowe beat Mr. M. J. G. Ritchie and Mr. "A. L. Bert" by three Swiss Championship (Ladies).—First round.—Miss M. sets to one. The victory of Mr. K. Powell in the singles less oxygen than fresh weter under similar conand of the brothers Lowe yesterday certainly shows the Second Round .-- Miss Salusbury beat Miss Chambers by advance of the younger players, although it must be and 4; Miss M. Maisey walked over; Mrs. Lassetter admitted, the entry was a poor one except in numbers; scratched; Mrs. Leslie-Smith beat Miss McNiven by 8 for of those who competed only Mr. Ritchie, among players and 2; Miss Coombs beat Mrs. Reade (the holder) by 6 | who have been known in lawn tennis for a considerable

number of years, could be called first-class. The match yesterday was quite an interesting one, and the brothers Lowe fully deserved their success. Final Round.—Miss Salusbury beat Miss Coombs by 2 | They played well and with good pluck; they were really quick in getting to the ball—a point where so many lawn tennis players fail—and their tactics seemed to be well thought out. They "peppered" Mr. "A. L. Bert" whenever possible and wisely played to his left hand side; Ladies' Open Challenge Cup.—Final Round.—Miss | for, in taking the ball on the bound, Mr. "A. L. Bert" has no back-hand stroke worthy the name. Both brothers "lobbed" with judgment and also brought off some good overhead strokes, although they made several Handicap Cup (Ladies).—Miss Maisey, 90-12=78; bad mistakes at such shots, which might have cost them

After a set all had been called, the winners took the third, although their opponents had led at four games to Handicap Challenge Cup (Men) (36 holes).—Baron two. Mr. Ritchie and his partner got to five games to This match yesterday proved a more satisfactory trial Heine-Geldern (30), 207-60=147; Mr. W. Tattersall two and 40 love in the fourth set, but the brothers Lowe (6), 161-12=149: Mr. F. Coombs (17), 184-34=150. pulled the game out of the fire. Getting the next two Mixed Foursomes Handicep.—Mr. and Mrs. Swaine. games they made the scores "five all," and they then won tion of the water passing over them. The the 11th game—their opponents' service—as well. A. H. Lowe lost his service game, but he and his brother important as forming a permanent source of won the next and then the 14th game, Mr. F. G. Lowe's nutriment for certain green sea-weeds. service, finished the match. The score was :---Gentlemen's Open Doubles.—Final Round.—Mr.

SHOOTING AND WOUNDING THE KING'S Swans.—Before the Feltham justices, yesterday, Ralph | the study of sewage treatment, but also in Frederick Dickerson, a motor engineer, of 165A, Percy- our knowledge of the general economy of Nature. end frequently went right through the opposition.
M. L. Atkinson was better at full-back. He fielded and kicked accurately, but was sometimes weak in tackling.

hon. secretary, Mr. C. Macdona (Trinity); hon. treasurer, kicked accurately, but was sometimes weak in tackling.

hon. secretary, Mr. C. Macdona (Trinity); hon. treasurer, kicked accurately, but was sometimes weak in tackling.

Thames Conservancy, for maining three of the King's transport on the Thames at Laleham by firing at them with road, Shepherd's-bush, appeared to answer eight sum- The nuisance caused by putrefying sea-weed swans on the Thames at Laleham by firing at them with Mackenzie, who played in the Freshmen's match, and Mr. C. B. Barry, Mr. F. H. Mugliston, Mr. M. Hemmant, a gun; also, for ill-treating and torturing other swans, and with navigating a motor-launch without proper care less extent—e.g., Dublin, Southampton, and Matches are being arranged this term with the Royston, The defendant, who was represented by Mr. Wilfrid localities. and caution on various dates in August and September. | Plymouth, as well as numerous smaller | slow and the footwork throughout bad. All the wing Great Yarmouth, Royal Norwich, Ipswich, and North- Firth, pleaded "Guilty" to a summons for maining swans on September 16. Mr. Leycester, who pro-NORTH SHORE CLUB (BLACKPOOL).—At this club's secuted for the Treasury, said the defendant was the weeds, notably Ulva latissima, have the proowner of a house-boat moored at Laleham, and on Septem- perty of rapidly assimilating nitrogen from ber 14 a servant employed on another house-boat saw the sewage or sewage effluents. When masses defendant from his house-boat fire a gan at some swans of this sea-weed are thus produced, aeration and injure one of them. On September 16 another serbut he lacks resource unless he has a straight run. T. M. the cup, the club's memento, a replica of the cup, and the vant saw the defendant do the same thing. He suc-Grant did not play so well at half as in the Freshmen's first optional sweepstakes. Mr. A. M. Secker won the ceeded in hitting the swan in the neck, the bird at once Careful study has shown that the fermentamental match. He passed wildly and was slow. The best piece in two steroes match. He passed wildly and was slow. The best piece of play in the game was a fine bout of passing, which ended in a score by Scholfield, the ball going to the wing Antoine Openshaw. The best returns for the Ashley work of the defendant's house, and both saw and heard work of the defendant's house, and both saw and heard work of the defendant's house, and both saw and heard in the second stage large quantities of su' Cup were:—Mr. S. S. Nash, 87-13=74; Mr. A. M. a shot fired. A search was made amongst the swans, and Secker, 85-10=75; Mr. C. Wood, 81-5=76; Mr. S. on September 20 one swan was found with two gunshot phuretted hydrogen are evolved. On the other Harrison, 93-16=77; Mr. C. Thompson, 94-16=78; wounds in the neck, the bullet in one case having gone hand, under conditions of healthy growth, the Mr. J. H. Humber, 81-1=80; Mr. J. Dickinson, clean through the fleshy part of the neck. Two other weed is capable of breaking up carbonic acid, 90-10=80; Mr. J. Hitchen, 99-19=80; Mr. L. Fish, swans were afterwards found wounded in the same way. Richard Turk, the Vintners' swan-keeper, deposed to find CHERTSEY CLUB.—Monthly medal:—Mr. A. J. King, ling two of the King's swans hit in the neck with a slug or a 95-12=83; Mr. H. W. Gosling, 94-9=85; Mr. W. bullet. Another swan was similarly injured. Robert The weed can obtain nitrogen not only from Harris, a boat-builder, said he found a swan with blood ammonia but also from nitrates. The ordinary marks on its neck, and, on examining it, found that a shot | methods of sewage purification which seek to had gone right through the neck. Mr. Firth said it was no doubt a very foolish act on the part of the defendant: The Royal St. George's Club's autumn meeting was but he was in the habit of feeding cygnets at his boat vent the growth of ulva. Professor Letts brought to a conclusion on the Sandwich links, yesterday. house, and whenever this was going on the big swans has, therefore, conducted special researches, would come and chase the cygnets away. To frighten having for their object the elimination of them away he just picked up a toy gun and "peppered' away at them until they had gone, but had no idea that he could seriously injure them. On one of the Conservancy summonses for maining, several witnesses de- tank effluent in a so-called "denitrifying clared the defendant placed a bright searchlight on his bed." A further suggestion is made that the launch and drove the vessel amongst the swans, who were for the best scratch score at either the spring or the dazzled by the light and were scattered in all directions. autumn meeting, with 78. He also secured the captain's One witness said this was done at least half a dozen times, and one of the birds was lifted clean out of the water and had its wing injured. The light, it was stated, was of the constituents favourable to the growth football, showing themselves well versed in the niceties dicap was won by Mr. E. F. J. Mills, with 83-2=81 and had no intention to injure the swans; that he used the about 3,000 candle-power. The defendant declared he of ulva. light to see the shellows. The Bench convicted on these two summonses, and imposed a fine of £10 on each,

viding meals for underfed children in the London elebut soon lost the ball, and in all respects were inferior to first, G. Morpeth, North Shields, 7yds., second, and mentary schools are the following:—Mr. John A. Fielden, Fund, £20; Miss L. G. Manley, £10; Lieutenant-Colonel Moreover, the respiratory activity of fish is Longstaff, £25 Rand Sir Charles A. Elliott, £10.

THE POLLUTION OF ESTUARIES.

Among the long series of important documents issued by the Royal Commission on by Professor Letts and Dr. W. E. Adeney on giate league is held in the Easter term; while during the and precision which may well serve as a model tion which is called for with different types of other matters, were postponed until the meeting in past few years the selectors of the Southern team have for future studies in a domain where rigid estuary, and different conditions of sewage dis- November. scientific methods of investigation have not charge. always been applied.

In addition to the actual researches of the systematic descriptions are given of fourteen blishment has already been recommended by important estuaries. These personal observations are amplified by replies to some 75 (1903). circular letters to medical officers of sea-coast towns which are given in an appendix. The whole is fully illustrated by maps and diagrams. Finally, general conclusions are given of far-reaching importance in regard to the pollution of tidal estuaries.

have been mainly confined to the study of the progressive changes taking place in polluted fresh and salt water, while Professor Letts has you have sent me. There is this to be said: the petitioners investigated particularly the conditions existing seem to assume that hares are hunted here in an unfit in the mud of polluted foreshores and the very curious and important part played by certain statements, I can only say that it is not true, the thing green seaweeds in relation to sewage pollution. in his branch of study has been to allow conversant with all the details. Again, I can only say polluted solutions of known composition to stringent measures than I have done. In short, the petioxidize spontaneously by exposure to under defined conditions, and to examine the protesting against an evil which does not exist, and, so far course of change, not only by the usual methods as I can make out, never has existed here. of water analysis, but also by careful determinations of the relative proportions of dissolved gases. For this latter purpose he makes use an ingenious and specially devised gasanalysis apparatus. In an addendum he also describes a very simple piece of apparatus by sideration by the committee which prepared the memorial, which the rate of absorption of atmospheric and I am desired by them to say in reply that it is doubtoxygen during the self-purification of a polluted solution can be easily and quickly determined, without resort to elaborate methods of analysis. As a result of exhaustive observations on the

course of oxidation of known substances, such as urea, albumose, asparagin, Rochelle salt, They feel, therefore, that, without any personal disrespect tion of organic matters proceeds in two distinct and progressive stages, the first, which may be it was by Etonians themselves that the terrible risks of CRAVEN and CRAVEN DOUBLE termed the "carbon oxidising" stage, resulting the late hunting were first brought prominently into public BROAD CUT can be obtained from ammonia, and excretory substances, and the wherever have hunting is carried on in March the hunting all high-class tobacconists. second, or "nitrogen oxidising" stage, when of doe heres with young must occur, that it would be diffithe two last-named bodies are further fer- | cult to believe that an evil inseparable from late hunting mented, the products being nitrites, nitrates, and elsewhere can be effectually avoided at Eton. The nuisance or to diminish the dissolved oxygen in | in which, after protracted runs, doe heres have been | a body of water will therefore depend on how far | killed and found to be with young are too numerous and The Oxford University Occasionals have a card very the fermentation of the organic matter has been carried before discharge.

by Dr. Adeney on the rate of re-aeration of fresh killed by the hounds and the motherless young left to die. aerated by polluting matters. It is found that of beagles and hariers, as you are doubtless aware, have the rate of re-aeration is greatly accelerated if for some years past ceased hunting far earlier than is the surface of the water is kept in movement. | customary at Eton, and the committee venture to think The curious observation is also made that the that it would have been more worthy of the traditions of rate of absorption of air by water is largely the school had Eton itself set this example, instead of determined by the presence of dust particles still declining to follow the precedent which has now been or other centres of condensation in either the air or the water, which produce effects of "streaming" and consequent rapid mixing. This effect is more marked with sea water than with fresh water, and, apparently, in consequence of this, the rate of re-aeration of sea water is nearly three times more rapid than that of fresh. the other hand, it is pointed out that fullyaerated sea water contains nearly 20 per cent.

The importance of these researches in determining the limits of pollution permissible in different circumstances is obvious.

In a section on "Nuisances caused directly by Sewage," after a valuable discussion of the present state of knowledge on the question, Professor Letts gives an account of researches, conducted under his direction by Mr. J. L. McKee, on the properties of foul mud. These establish the fact that sulphuretted hydrogen is produced through the reduction of sulphates by specific micro-organisms occurring in sewage mud, and, moreover, that the black of sulphide of iron and other sulphides present in sentatives. most deposits of sewage mud are decomposed by carbonic acid with production of sulphuretted hydrogen. Foul mud is further found rapidly to absorb dissolved oxygen from water, to reduce any nitrates present therein, and also to evolve ammonia. In all these various ways deposits of sewage mud are shown to be liable to cause nuisance, not only directly by evolving noxious gases but also indirectly by affecting the composigradual evolution of ammonia is especially

The investigation of the part played by Mr. V. C. Longstaffe, who captained the side, is the only F. G. Lowe and Mr. A. H. Lowe beat Mr. M. J. G. Ritchie | these green sea-weeds in producing nuisances has yielded, in the hands of Professor Letts, results of extreme interest and importance, which form a fascinating chapter, not only in has reached alarming proportions along the year the cylinder bore was restricted to 155 millishores of Belfast Lough; but Professor Letts cites other cases where nuisances occur to a

Professor Letts has found that certain seabecomes impeded and putrefaction sets in. and evolving large quantities of oxygen, and thus maintaining the aeration of the water. produce nitrates are thus inadequate to prenitrogen in the gaseous state, by the interaction of a well-nitrated effluent and a septicgrowth of the ulva may be controlled in special ponds, fed by the sewage effluent, the liquid issuing from the pond would thus be deprived The section by Professor Letts on the pollu-

tion of water in relation to its effects on fish, with costs, the chairman remarking that it was time that, although mainly concerned with the discussion in the interests of the users of the river, such peculiar of previous researches, is very interesting read-A 130 yards invitation professional handicap was methods were stopped. The defendant was also fined ing. It appears that the pollution of water may affect fish in several ways—e.g., by absorbing the dissolved oxygen of the water, by direct MEALS FOR UNDERFED CHILDREN.—Among toxic action, and by the formation of deposits. the recent donors to the Mansion-house Fund for pro- These latter may interfere with spawning, or destroy the food supply of the fish, or clog their £100; the Lord Mayor, £21; Mr. Alderman and Sheriff gills. Much work is still to be done on the oxygen Goals were scored in the first half by N. Middelboe, V. B. R. Day, of Dublin, who was at scratch, J. Walker, Hanson, £10 10s.; Mr. Sheriff Baddeley, £10 10s.; Alder- requirements of different kinds of fish. It is Wolfflagen (two), and H. Bohr; and in the second half Cupar, 41yds., W. Reed, South Bank, 7yds., and T. man Sir John Pound, £10 10s.; Alderman Sir W. Vaughan known that sluggish fish, especially such as live Morgan, £10 10s.; Sir Harry Poland, K.C., £10 10s.; on muddy bottoms, like eels, require much less oxygen than more lively fish, such as trout.

tant bearing on fish life.

at Oxford and Cambridge during the past few years and Sewage Disposal, a supplementary volume present, fresh sewage is not necessarily harmful to be in favour of 130mm., Italy from 120 to 130, and the undoubted popularity of the game at the Universities presented with the fifth report and just pub- to fish; in fact certain fish actually will feed on the French Club was known to be agreed on 140mm.

The tentative standards of dilution, &c., which they propose for different cases, they recommend should be referred, for precise Did Shakespeare Smoke? the Royal Commission in their third report

ETON

The following correspondence has taken place Speaking generally, Dr. Adeney's researches secretary of the Ladies' Memorial Committee :- | the qualities necessary to the produc-The Cloisters, Eton, Oct. 6, 1908.

this taking place. To those who believe the first of these The general method employed by Dr. Adeney there being a risk unless they are on the spot and fully air tioners, like others who have written on the subject, are '' Poets and dramatists smoked until Yours faithfully,

E. LYTTELTON. Mrs. Penn Gaskell.

12, Nicoll-road, Willesden, N.W., Oct. 19, 1908. Dear Sir,—Your letter of 6th inst. has been under conless a fact that none of the memorialists are in a position, from personal knowledge of the Eton Hare Hunt, to testify to the existence at Eton of the evils which the memorial deplores: but the committee venture confidently to believe that you also have never been in the habit of following the Eton Beagles, and that you consequently to you, they may be permitted to doubt the accuracy of your conclusions as to the facts. I may remind you that committee are aware that you, with others, have maintained that nature itself has safeguarded the female hare by depriving it, during pregnancy, of scent, but the cases well authenticated for this comfortable view to be any longer tenable; and, even if it were better founded than | 🛶 it is, there would still be that other equally grave danger, Another important investigation is described that doe heres whose young are already born may be sea water respectively, after being de- Actuated solely by the humane desire to guard against

> ELINOR PENN GASKEII, Hon. Secretary to the Memorial Committee. To the Hon. and Rev. E. Lyttelton, Headmaster of

On YACHT-RACING FIXTURES OF 1909.

TO THE EDITOR OF THE TIMES. Sir,-I shall be greatly obliged if you will permit

me to ennounce through your columns that at the forthcoming meeting of the chief yacht clubs of the United Kingdom and the owners of racing yachts in the international classes of 12 mètres and over, to be held at the Langham Hotel, London, on November 4. for the purpose of arranging the fixtures for the Y.R.A. classes for the racing season of 1909, the following rule will be observed :—

Each club, &c., and each owner will have one vote and the chairman of the meeting a casting vote. The meeting will consist of the representatives appointed by the recognized yacht clubs, &c., named in the notice convening the meeting, and the owners yachts on the British Register racing in the Y.R.A. classes of 12 mètres and over, or their certified repre-

The representatives appointed by the yeaht clubs need not necessarily be the club representative under Y.R.A. Rule 3, but may be any member of the club, &c., specially appointed for this meeting. No individual may represent more than one club. As this meeting is of great importance to the chief

yacht clubs of England, Scotland, and Ireland, the insertion of this letter will prove of much assistance. I am, Sir, your obedient servant, B. HECKSTALL-SMITH, Secretary Yacht

Racing Association.

THE AUTOMOBILE GRAND PRIX.

Ryde, Isle of Wight, Oct. 19.

The delegates of the recognized motor clubs met at the | 60 Automobile Club of France, in Paris, yesterday, to decide on the rules for next year's Grand Prix. This mètres for a four-cylinder motor, and the speeds attained were such as to play havoc with the tires. Consequently, DU BARRY & CO., Ltd., 123 and 124, there was a general desire for reduction, but the countries' opinions as to how much the measurement should be

reduced varied considerably. The Royal Automobile

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RULES FOR NEXT YEAR.

greatly increased by rise of temperature. The Club had shown that its aim was towards restriction fact that the proportion of oxygen held in solu- by the institution of the "Four-Inch" race, the metric tion by sea-water is, as already stated, appreci-equivalent of which was, approximately, 100mm. ably less than in fresh water has also an impor- At yesterday's meeting it was therefore believed that the Fuglish delegates would vote to reduce the 155mm. It would seem that, if sufficient oxgyen is to about 120mm. Germany and Belgium were said

at the present moment. In 1897, at Oxford, there were lished as a Blue-book [Cd. 4284] calls for excrementations material. Reference is made As the result of the discussion the maximum bore only about 30 undergraduate players, and they were special consideration. It consists of a report to the interesting experiments in fish culture was fixed at 130mm. An alteration was also made at the Berlin sewage farms, where the effluent with regard to the weight limit. This year's rule gave is collected in ponds, which are stocked with 1,100 kilogrammes as the minimum. France was for fish, the latter thriving on the rich growth of lattering this to 900 kilos; Germany, Italy, and England to 1,000; and Belgium and America to 1,050. Finally, systematic information is given as to In this France gained her point, the minimum weight

> In the "General Conclusions" to their whole and the Automobile Club of Norway was enrolled in The principle of the Gobron type motor was admitted;

J. M. BARRIE, in "My Lady Nicotine," says: "I know that there is no mention of Tobacco in Shakespeare's plays, but those who smoke Arcadia tell their secret to none, and of other mixtures they scorn to speak."

If Shakespeare did smoke, there is between the Headmaster of Eton and the hon. only one tobacco that possesses all Dear Madam,—I am in receipt of the petitions which tion of a masterpiece and its name is

all ignoble ideas were driven from them, and into their place rushed such high thoughts as the world had not known before."

—"My Lady Nicotine."

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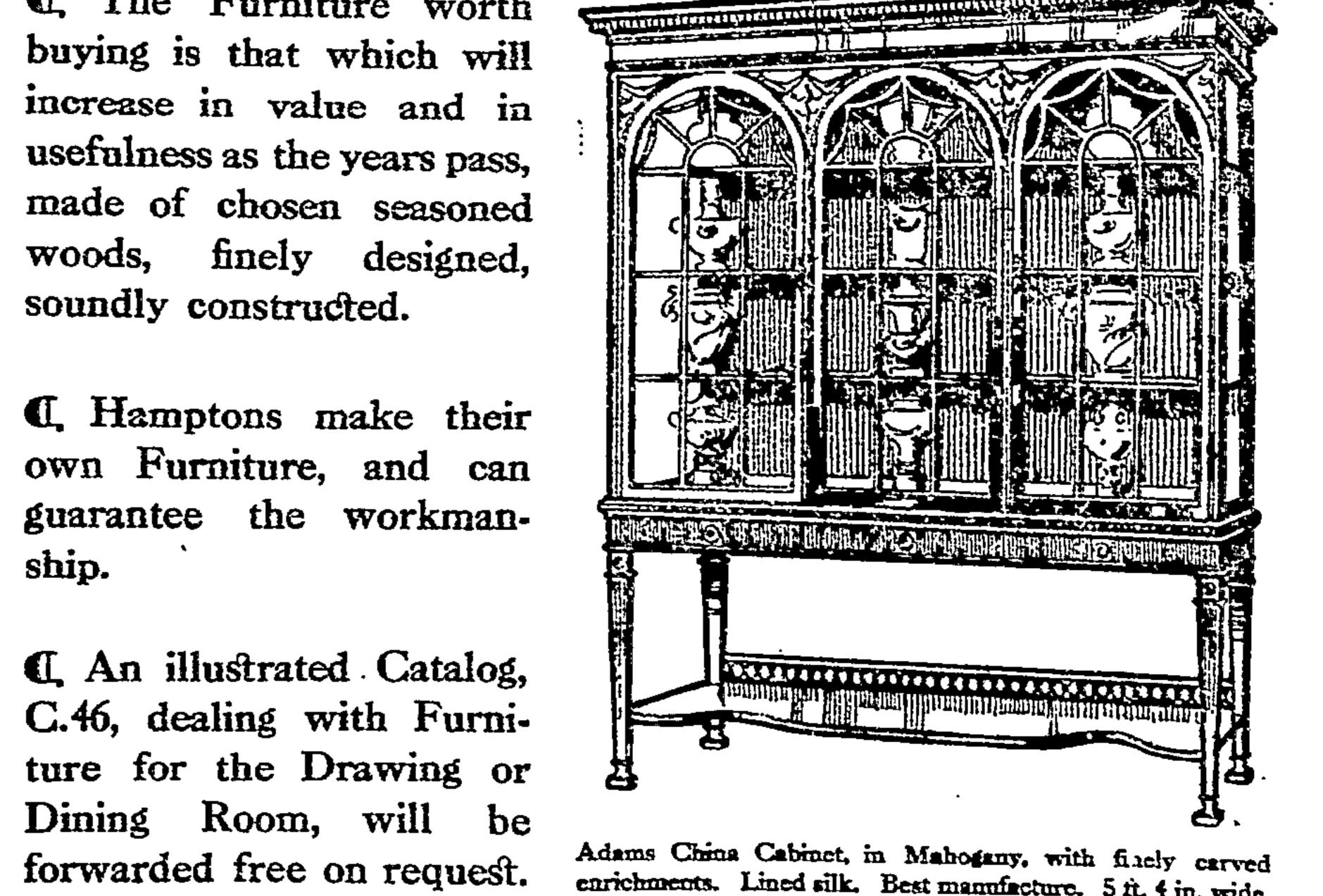
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