Vol. I.—No. 2.] MARCH, 1912. [PRICE 6d.

THE M.A.D.C. MAGAZINE

CONTENTS

THE MIDLAND · AGRICULTURAL · AND · DAIRY · COLLEGE · KINGSTON · DERBY ·

STRICKLAND BROWN 1911

PRINTED BY DERRY AND SONS, LTD., NOTTINGHAM.

MESSRS.

SISSON & PARKER,

BOOKSELLERS & STATIONERS
TO THE

M. A. D. C.,

invite communications from all past and present students in whatever part of the earth for

TEXT BOOKS,

EXERCISE & NOTE BOOKS,

STATIONERY, &c.

of which Messrs. S. & P. have a very large and varied stock.

No one can afford to be without a Fountain Pen to-day, but it must be a reliable article or it is worse than useless. After many experiments Messrs. S. & P. have pinned their faith to the following

FOUNTAIN PENS

The "Scout"	...	**2/9**
The "Standard"	...	**4/6**
The "Waterman"	...	**10/6** & upwards.
The "Swan"	...	**10/6** „
The "Onoto"	...	**10/6** „
The "University" Stylo		**3/-**

Quite reliable. Black, Green, or Mottled.

Any hand fitted and satisfaction guaranteed.

WHEELER GATE,
NOTTINGHAM.

Trade Mark.

DAIRY INSTITUTES.

ESTAB. 1785.

R. J. F. & B have had over 125 years' experience in the manufacture of Annatto and Butter Colour, and 40 years' experience in Rennet manufacturing. These preparations have the largest sale in Great Britain, and are used and recommended at THE PRINCIPAL

R. J. FULWOOD & BLAND'S
ANNATTO
RENNET.

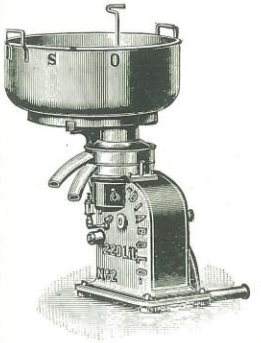
"OLEO" AND "SUNBEAM"
Butter Colouring.

Ferments. Daily Thermometers. Measuring Glasses, &c.

Awarded Silver Medal by the Royal Agricultural Society of England.
Also, the German Agric. Societies Medal.
Two of the highest awards in Europe.

"THE DIABOLO" CREAM SEPARATOR

Sales, 100,000 in 3 years.



No. 2 Diabolo.

GUARANTEED 10 YEARS.

One Month on Free Trial.

Capacity 27 Gals., £4 10s.

Capacity 50 Gals., £8 8s.

Equal in every respect to many Separators costing double the price.

Send for List of Testimonials.

For Samples of the above Preparations, and particulars of the Diabolo Separator, apply to

R. J. FULLWOOD & BLAND, 31, 33, 35, Bevenden Street, London.

PURITY & GERMINATION GUARANTEED.

Discriminating farmers require satisfactory proof that the seeds they use shall be the best only. We have been established longer than any other seed merchants and growers and our varieties are recognised as the best paying in existence.

Mangolds of 130 per cent. Growth.
Clovers of 98 per cent. Purity.
No Dearer than inferior Articles.

HARRISON & SONS,

Seed Growers, LEICESTER.

Established 1836.

THOMAS VICKERS & SONS, LTD.,

BONE MANURE and

Superphosphate Manufacturers,

(Head Office.) *MANCHESTER.*

Superphosphates (all grades) and other Manures at lowest Prices.

Quotations made to any Station on receipt of post card.

WORKS:—MANCHESTER, WIDNES, SANDBACH.

VIPAN & HEADLY,

LEICESTER.

For 26 years VIPAN & HEADLY'S RAILWAY CHURNS have never been beaten at the London Dairy Show, at which they have been awarded **17** First Prizes.

Railway Milk Churns.
Delivery Churns.
Hand Carts.
Milk Carriages.

DAIRY UTENSILS OF EVERY DESCRIPTION.

New General Purpose and Milk Delivery Float.

PRICES:—	Pony Size.	Cob Size.	Horse Size.
CREDIT	**£18**	**£19**	**£20**
CASH	**£17**	**£18**	**£19**

EXTRAS—Lamps and Brackets, **£1**, Lettering according to requirements.

ILLUSTRATED CATALOGUES OF

DAIRY GOODS, FLOATS, CREAM SEPARATORS, &c.,

Post free on application.

By Royal Warrant to H.M. King George V.

The latest and best Appliances for

MILK PRODUCTION,
MILK DELIVERY,
CREAM SEPARATION,
BUTTER MAKING,
CHEESE MAKING,
MILK RECORDS,
etc., etc.

ILLUSTRATED CATALOGUE POST FREE.

DAIRY SUPPLY Co., Ltd.,

Museum Street, LONDON, W.C.,

— and at —

EDINBURGH, CORK and BELFAST.

MANURES AND FOODSTUFFS.

Basic Slag,
All grades.
Nitrate of Lime.
Nitrate of Soda.
Sulphate of Ammonia.
Salt. Lime.
Ground Lime.
Molassine Meal.
Sulphate of Potash.
Muriate of Potash.
Superphosphate,
26, 30, 32 and 35%.
Kainit.
Bones.
Moss Litter.
Treacle.
Feeding Stuffs.

Prices and Analyses on application.

Clement Swaffield, Derby.

Telephone No. 58.

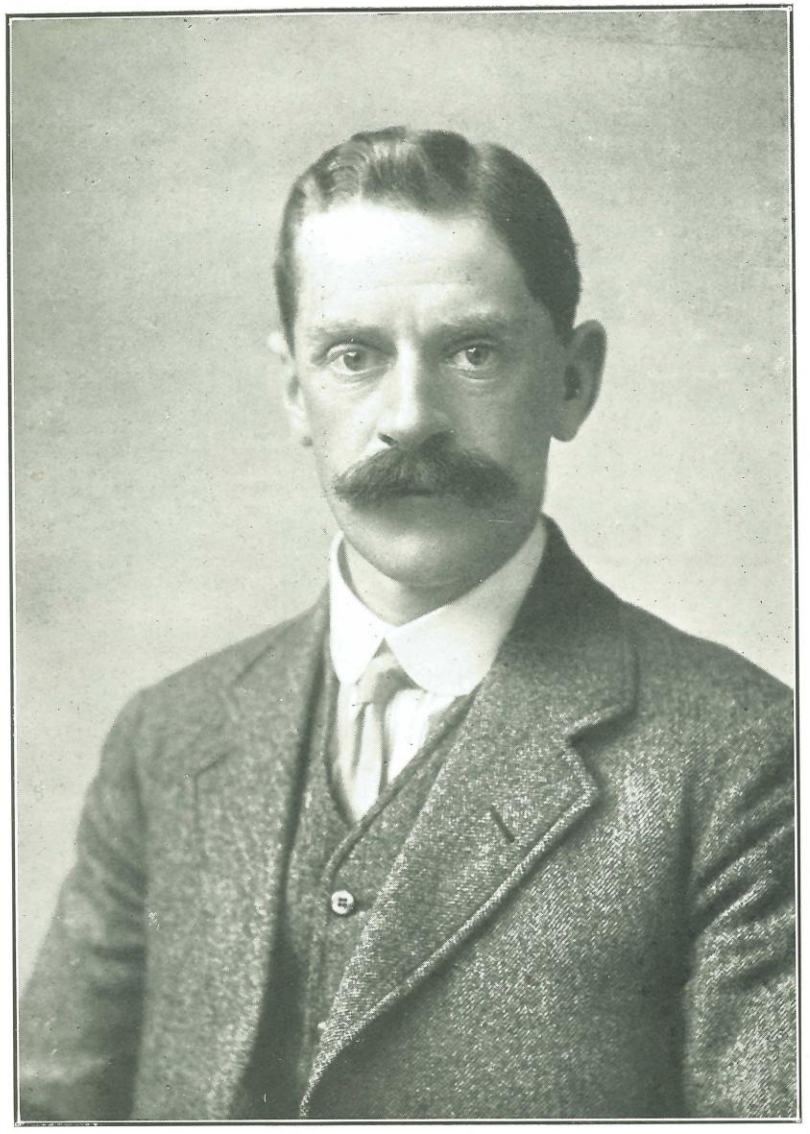


Photo by *Russell & Sons, Southsea.*

F. WAKERLEY.

The Midland Agricultural and Dairy Students' Association.

1911-12.

Honorary President :—

DR. WILLIAM GOODWIN.

President :—

MR. FRED WAKERLEY.

Vice-Presidents :—

MISS G. PIMLOTT. MR. L. ASHWORTH.

Hon. Treasurer :—

MR. FRED WAKERLEY.

Honorary Secretary :—

MR. W. SADLER.

Assistant Honorary Secretary :—

MR. F. WILKINSON.

Committee :—

MISSES M. G. D. TAYLOR and D. WEATHERELL.
MESSRS. J. W. JOLLY, F. RAYNS, and J. H. ARTER.

Librarian :—

MR. G. O. FOX.

M.A.D.C. Magazine :—

EDITOR—MR. FRED WAKERLEY.
SUB-EDITORS—MESSRS. L. ASHWORTH and P. J. POWELL.
COMMITTEE—MISSES M. ROWLAND, M. G. D. TAYLOR, D. WEATHERELL, and G. PIMLOTT, MESSRS. F. WILKINSON and J. W. JOLLY.

CONTENTS.

EDITORIAL.

How time flies! Another year has gone, and the editorial staff of the M.A.D.C. Magazine find themselves reviewing the past, hustling the present, and with hopes of future success.

It is with satisfaction that we chronicle the generous response of our readers to earlier appeals in furthering the circulation of our first number. Not only have the sales exceeded our expectations, but a more than abundant crop of original articles have been received for this issue.

This is as it should be, and whilst we feel that there is some responsibility in embarking upon a bulkier number, we take the unfaltering step with that youthful ambition with which the young pedestrian climbs a steep and difficult ascent with aspirations of an invisible easier track beyond.

Last year quite a sheaf of correspondence was received from old students of the College; many of the letters containing useful suggestions.

One new departure, resulting from these hints, is the inclusion of a list of subscribers at the end of the articles. This list will be added to from time to time and, we think, will meet with the general approval of all, as it enables interested members of the Students' Association to know the whereabouts of each other.

By request, some of the copy appears over a "nom de plume," though it might be of more interest to readers to know the authors. This matter, however, has been considered, and it occurred to us that there might be people whose modesty would not allow their names to scintillate with their literary talents, and sometimes the mystification of authorship lends a further charm to the production.

We are glad to say that the College, as a whole, continues to flourish; and has every prospect of a continuance to do so. With a full complement of students—others anxious to come—and a supplementary farm, near Kegworth Station, about to be taken in hand, it augurs well for the rising generation of farmers and dairy workers.

A DANISH "MIDLAND."

By Dr. Wm. Goodwin.

English visitors usually praise the methods of farming and dairying which they see in Denmark, and unquestionably much of the praise is well deserved, for the Danes have achieved success in the face of many difficulties. In attempting to arrive at an estimate of how far the preliminary training and education of the farmers in Denmark are responsible for the good results which are achieved in later life it would be necessary to go very fully into the question and to examine the agricultural education of the country as a whole. Such a task is manifestly outside the limits of a short article, but it may be of interest to readers of this Magazine to hear something of an institution which corresponds very closely in aim and scope to the Midland.

The school in question, called the Ladelund Agricultural and Dairy School, is situated near to Brorup, about two hours train journey from Esbjerg. It stands in the country, and is not remarkable for any external beauty in the buildings –two points which it has in common with the Midland. Niels Petersen was the founder, and since the time of foundation up to the end of 1909 the number of students who had attended a course in agriculture, dairying or milk control, was 4,784. The courses are divided into

1. A five months' course in agriculture (November-March).
2. A four months' course in agriculture (April-July).
3. An eight months' course in dairying for factory managers (September-April).
4. A three months' course for control assistants (May-July.)
5. Two one month's courses in April and September for milk testing, &c.

The working hours are from 8-12 in the morning and from 2 or 3 in the afternoon until 6 in the evening. A large number of subjects are covered in the longer course in agriculture and dairying, and for purposes of comparison the syllabuses of the two long courses may be given. In the five months' course in agriculture the following subjects are taught:—Chemistry, physics, botany, land surveying, soil chemistry, bacteriology, mensuration, Danish, agriculture, veterinary science, dairying, history of agriculture, book-keeping, economics, engineering and

agricultural implements. In the 8 months' dairy course the subjects are similar to the above, except that a longer time is given to bacteriology and dairying, and instead of agriculture a full course of dairy calculations, herd book explanations, &c., are given. Practical work in the bacteriological and chemical laboratories is fully gone into.

Exercise seems to be limited officially to gymnastics, which take place each day, and are obligatory unless the student is unfit for the exertion. A large gymnasium, which serves as a recreation room for social meetings, dances, &c., is one of the main features of the buildings.

Another course—that for control assistants may also be mentioned, for it is here that the first great difference between our own College and the Danish one comes in. All over Denmark are "control societies," or, as they are often called, in this country and Scotland, milk record associations. These control societies comprise a group of farmers who employ an assistant to go round and visit each farm in turn to weigh and test the milk, to advise as to the feeding of the cows, and to calculate the return of milk for the food used. For this work a special training is needed, and a three months' course at Ladelund qualifies for a certificate. The subjects which are taught are veterinary science, milk-testing, calculations such as are needed in the control work, and practical exercise in the testing of milk chemically and bacteriologically. A shorter course of one month's duration is given to those who wish to learn milk-testing, and the subjects usually taught to control assistants, but do not intend to specialise therein. Another remarkable feature of the school is the collection of dairy appliances collected in a large shed well lighted from above. The various machines and appliances illustrated very pointedly the rise and development of most of the familiar dairy appliances. A large number of separators, one or two of the earliest types of milking machines, butter workers, machines for weighing milk, coolers, pasteurisers, &c., fill the shed, and are carefully arranged and marked. I was told that new appliances are often tested at the school and reported upon. In a similar but longer shed is a collection of agricultural implements, most of them only of historical interest, although some modern examples were to be found.

These collections, of which there are several in Denmark, are of great educational value, for they show the evolution of the implements and appliances, and very often are the means of preserving things which would otherwise be lost or destroyed.

The chemical laboratory is small, and in it the official milk, manures and feeding stuff analyses for the district are made, The bacteriological laboratory is similar to the one at Kingston. and serves partly as a lecture room. The dairies are small and not up to date, except as regards one or two pieces of machinery.

The cow shed holds about 25 cows of the red Danish breed, it is noticeable in English eyes for the shortness of the standings and the deepness of the gutter. The cows tails are fastened to a string suspended from the ceiling during milking.

The housing and the boarding of the students seemed to me to be rather below our standard. In some of the bedrooms there are two or three beds, but the room is generally large enough to serve as a bed-sitting room. There is electric light, for which a student is charged extra, but he may use a lamp of his own if he wishes and will provide oil. As far as I could ascertain, the meals corresponded with that at the Midland, and the dinner to which I was hospitably invited would probably supply as much food to the system as our own joint and pudding. Still my insular taste was not altogether gratified by a sour milk soup, raw smoked ham, boiled potatoes and rice pudding.

The fees vary from 40/- to 52/- per month, a composition fee being charged for the course. Heating and lighting are extras.

After carefully going over the school and making as many inquiries as possible, I came to the conclusion that as regards building and equipment it was not up to the Kingston standard, but I believe that the students derive greater benefits from their training because most of them are anxious to learn as much as possible in the time. It is doubtful if English youths would ever get through the same amount of routine work unless there were a great change in the temperament of the race.

On the occasion of my visit it was not possible to go on to the farm as the rain fell in torrents the whole time, but I gathered that it was about 72 acres in extent, and was used for field trials to a certain extent and also for revenue.

LINCOLN RED SHORTHORNS.

Before the year 1895 the Lincoln Reds, as the Lincolnshire Red Shorthorns are popularly called, were little known beyond their native boundaries, although Lincolnshire had long ago earned the title of premier agricultural county in England. It was in that year that the Lincolnshire Red Shorthorn Association was formed to promote the interests of the breed, but it was not until the year 1901, when the Royal Agricultural Society first granted them special breed classes at their Exhibition at Cardiff, that the cattle really began to attract attention, the comments of the ring side being distinctly favourable. The general opinion was that they were bred on shorthorn lines to a well defined type and colour, showed great evenness of flesh, and were possessed of undeniable milking qualities. Since then, there has been a steady advance both in the appearance and the popularity of the breed. It is claimed by the admirers of the breed that the Lincoln Reds are the ideal tenant farmers' cattle, hardy and thrifty, and with the soundest of constitutions ; economical feeders, a race of beef and milk producers, and in fact real rent payers. Their history shows that this boast is no idle one. Wintered in fold yards, with little or no shelter; fed on barley straw and a few turnips ; exposed to the coldest of winds and the wettest of weather, the weakest have been weeded out with most marvellous certainty. About the middle of April they are turned out to get their own living, facing the biting East winds from the North Sea, and if there is any delicacy in cow, or calf, it must soon be discovered. During the hot months of summer there is often little drink except such as is provided by stagnant ponds. This is the test that has been going on in the case of the Lincoln Reds for a hundred years or more. And the result? Surely it must be the survival of the fittest. They grow and develop where most breeds would pine and shrink, and bring up two or more calves besides their own. At two-and-a-half years old the grass-fed steers may be looked upon to yield from 8 to 10 cwt. liveweight, and stall fed cattle up to 24 cwt. liveweight, the butchers saying they cut up a far greater proportion of lean flesh, with very much less offal, than any other

breed they know. By judicious selection and proper treatment the milking capabilities of the breed may easily be developed as has been proved by their wonderful successes in the chief milking trials in England and Ireland.

They have won 1st and Challenge Cup, milking trials, three years in succession at Tring Show—the largest trials in England. Four firsts and three seconds in last eight years. At the Royal Show of England, 1910, "Burton Fuchsia 3rd" gave in 24 hours 77 lb. 12 ozs. milk, containing 4·5 % fat, which churned into 3lbs. 12½ ozs. butter. This constitutes a *record* for any pure bred cow in England.

During 1911 the Lincoln Reds have won 1st and 2nd Open Dairy Class, 2nd and 3rd Open Milk Test, Royal Show at Norwich, &c., &c., &c. (At this Show "Burton Milker 2nd" gave 56¾ lbs. milk when milked in the ring. This is the *largest amount* ever known to have been given at *one* milking in England.)

The following table will give some idea as to how the Lincoln Reds compare with other breeds in milking trials. The figures refer to the Open Milking Trials, Royal Show of England, 1907 :—

Breed,	*Cow.*	*Points.*	*Awards.*
Lincoln Red	"Burton Vic. 2nd."	83·90	1st twice.
S. Devon	"Honesty 3rd"	80·78	1st & 2nd.
Lincoln Red	"Burton Iris."	78·93	3rd.
Shorthorn	"Warwickshire Hettie."	74·12	1st.
Lincoln Red	"Burton Violet."	73·03	2nd.
Lincoln Red	"Burton Young Cherry"	71·25	3rd.
Shorthorn	"May Duchess."	70.82	2nd.
Shorthorn	"Priceless Princess."	70·17	3rd.
Guernsey	"Goodnestone 2nd."	68·48	1st.
Ayrshire	"Lady Flora."	68·00	1st
Lincoln Red	"Bracebridge 117th."	67·50	4th.

The awards refer to both the open and breed milk tests.

In the general average of all breeds the South Devons come first with 72·09 points. (See the following table). But only two of this breed were entered as compared with eight Lincoln Reds.

If the average of the two best of these is taken, it works out at 78·49 points, which places them easily ahead of all breeds in the Show.

Breed.	*Number.*	*Milk. lbs. ozs.*	*Fat. per cent.*	*Total Points.*
South Devons	2	46 12	4·16	72·09
Lincoln Reds	8	51 1	3·35	67·35
Shorthorns	9	49 1¾	3·16	62·64
Jersies	5	37 5⅕	4·50	62·07
Kerries	5	35 4	3·42	57·93

The reputation of the breed as an ideal dual-purpose cattle is thus fully established ; for no other breed can boast such beef-producing steers, and at the same time such milk-producing females.

From the above description we see that their chief characteristics are :—

1.—Hardiness—because they are naturally reared by tenant farmers who make them "rough it" in a changeable climate, and they are not in-bred.

2.—Whole red colour.

3.—Early maturity, producing young bullocks of first-class quality.

4.—When bred for milk they have proved that they can hold their own for quantity and quality in any company.

The annual sale of bulls held by the Lincolnshire Red Shorthorn Association in April, also goes far to show the growing popularity and improvement of the breed. These sales were started in 1896, when 140 bulls were sold to average £23 9s 5d , the highest price being 50 gs.

In 1910 277 bulls were sold to average £25 5s. 7d., the highest price being 112 gs.

In 1906 "Scampton Goldreef" (4569) was sold for 305 gs. to go to Chili.

Not only has the breed made headway in England but a large number of animals have been exported to the Transvaal, Matabeleland, Natal, Cape Colony, Sweden, Canada, South America, Chili, British Columbia, New South Wales, and elsewhere.

JACK EVENS.

"HAT NIGHT."

We're told that English people,
(If you take them as a nation,)
Are always running here and there
To find a new sensation.

Now there's *one* comprising heat, cold chills,
Some pleasure too, and fright,
And if you wish to feel such thrills
Just turn up on "Hat Night."

Unto the Lecture Hall you bend
Your well accustomed feet,
There sit the Staff and all (?) the boys
Apart, as is most meet.

To appear as if you saw them not,
Though hard—you try to do it,
You take your seat and think 'what rot
But I must needs go through it!'

Then you take a slip of paper
And on it write your word,—
Dogs, aeroplanes, or "footer,"
Or choose one that's absurd.

You also write your own full name
Upon another slip,
Two hats receive them, that's the game,
Then shuffle, mix, and dip.

What is that name? Oh, Heavens not mine,
Professor Peas is saying!
I slowly rise, and all the time
For fortitude am praying.

My subject seems the very one
I never should have chosen,
All my ideas, where have they gone?
Why should my tongue be frozen?

Some faltering words then stumble out,
Whence come they? Goodness knows!
Then there is clapping round about
From friends. (I have no foes.)

And after this, now this is where
The pleasure doth begin,
You look around without a care,
And clap and make a din.

Then all troop in to supper
And discuss the whole affair
How we'd each felt in a flutter,
Having no time to prepare.

Then upstairs in wildest spirits
To our dear old sitting room,
Some are hanging out the windows,
If perchance, should shine the moon.

Thus ends the night called "Hat Night,"
Though at first it may seem lame;
Yet you find when you review it
You've enjoyed it all the same.

—Merry Widow.

"THE SHINING LIGHT."

What is the cry that's heard abroad
When thinking of a finished hoard—
Why! Brass Polish.

That makes a student wander in
To see if she can steal a tin—
Of Brass Polish.

What makes us look so sour and grim
Because the brass will not look trim—
Why, Brass Polish.

A want is felt in every place
Wherever there is breathing space—
Of Brass Polish.

When we have only simple chalk
We all begin at once to talk—
Of Brass Poiish.

Good chums will even fight and grab
And from each other try to nab—
Some Brass Polish.

—Biscuits.

TRAVELLING DAIRY SCHOOL.

By J. W. D. Stafford, N.D.D.

The Travelling Dairy Schools in the various counties are doing much useful work amongst farmers. By these schools a greater number of people are brought into contact with the educational side of dairying than would otherwise be the case. The main object of a Travelling Dairy School is to supply sound instruction in the art of butter-making and kindred subjects to those pupils attending it. To this end short classes, usually of 10 days duration, are arranged at various centres.

The first lesson is in the form of a butter-making demonstration by the teacher, and the various details in connection with the churning and making of the butter are thoroughly explained and demonstrated. At the remaining nine lessons the pupils themselves do the work and, by this means, become quite familiar with each manipulation. Short lectures dealing with the theory of butter-making are given each day and the pupils encouraged to take notes, while an examination is usually held on the tenth day. This is conducted by a member of the Farm School or College Staff, and both the practical and theoretical knowledge of the pupils is tested, marks being awarded in accordance with their proficiency.

Scholarships.

A scholarship is usually awarded to the pupil gaining the highest number of marks, provided that he or she is directly connected with agriculture. If this pupil is not connected with agriculture, the scholarship is passed on to the next eligible student. These scholarships are of the value of some five or six weeks' free tuition at the Farm School or College Dairy, and include board and lodging. The pupils gaining such scholarships frequently stay for a longer period in order to obtain a more thorough knowledge of dairying in general.

Organisation.

This is an important item and is usually carried out by the teacher and a Local Committee, under the direction of the County authorities. The success of the class largely depends upon the energy of the Honorary Local Secretary, and it is important that

any person holding such a post should have a keen interest in the work.

A nominal fee of 2/6 is usually charged for the class, and anyone wishing merely to visit as an onlooker is charged 1d. The class occupies some 2½ to 3 hours each day, and is arranged at times most convenient to those concerned.

Certificates.

A certificate of proficiency in butter-making is awarded to each pupil gaining 75% marks and over, while those gaining less than 75% are awarded an attendance certificate only, provided that they have attended not less that eight of the lessons. The pupils attending these classes are usually dairymaids, farmers' sons and daughters, and as these persons are directly connected with milk and its products, it can clearly be seen that the Travelling Dairy School is fulfilling its object. It is quite clear that, owing to the shortness of the course and the fact that the pupils have had little previous knowledge of the work, the instruction given must necessarily be simple in character and based on sound practice.

Other Advantages.

The teacher arranges visits to farms in the neighbourhood of the school and imparts such information as may be required. The farmers have also the privilege of sending samples of milk to be tested for butter-fat, and the cream yielding quality of their milk tested by means of the separator. Advice is given in cases of troublesome taints and the best methods of overcoming them explained. Samples of butter are also sent for inspection and an opinion expressed as to their quality.

Farmers often experience difficulties in the ripening of their cream, and this subject is fully dealt with, and not a few of these difficulties are overcome by attention to the instruction given.

It is a distinct advantage if the dairy teacher is familiar with the methods of dairying practised in the locality, as if the farmers cannot altogether adopt new methods, much good may be done by a modification of those already in existence.

Above all, the teacher should possess a large amount of tact, and be able to look at things from a practical point of view. The farmer does not want high-flown theories, but sound practice, with enough science to enable him to understand it.

OF LANDLADIES.

"What, without asking, hither hurried whence?
And, without asking, whither hurried hence?"

Landladies, as a class, are maligned. After fifty-seven of them, I can still say this, But I was brought up to believe very differently, and as I approach each new lodging, my own experience shrinks back, cowed by the vision of the ogress my early beliefs have taught me to expect.

One episode shines out clearly from the past. I had arrived at my new centre one Saturday afternoon, tired, hot and dusty, after a long cycle ride, and after some difficulty, had found my lodgings. My landlady-elect had not expected me so soon, and was on her knees washing the doorstep in preparation for the morrow. One glance showed me that I was doomed. As she turned I beheld a face redder than the dawn, a pink flannelette blouse redder than the face, a horrible squint, and a toothless smile, which meant unutterable things. Still smiling, she bade me enter, showed me my room and disappeared.

Presently the air was rent with screams and cries horrible to remember. "My turn next, I suppose," I thought grimly, and made for the kitchen to meet my foe. The ogress was seated at the table. She rose at my approach, wiping her eyes with a corner of her apron. "They've just taken away my pig," she explained, "I am quite upset about it. What! she is weeping over a *Pig!* Oh, timid lodger! will she who mourns a fatted porker not have mercy on a poor peripatetic?

* * * * * * * *

I was lodging in a white-washed, rose-covered cottage, just at the gates of the Hall. My landlady was of the old school, of the type that is usually described as shrewd and kindly. The Hall was her horizon, and the training ground of her sons and daughters, all of whom, at one time or another, had been in the service of her ladyship. My sitting-room was decorated with photographs of various members of "the family," signed by their own hands.

Her ladyship had been a remarkable personage, who had interested herself in the doings of the village, and, amongst other

good deeds, had endeavoured to teach the ignorant mothers the best methods of bringing up their children. "But she didna mak' sic a guid job of her ain bairns," added my landlady, with a gleam of malice.

But times had changed. Her ladyship had long since been gathered to her fathers, the hall stood empty, and the grounds were deserted. While the old laird had never been happy away from his home, the young laird was never happy in it. He and his wife were "always travelling in foreign parts and a' that sort o' thing," and as for the present generation of village mothers, it was to be presumed that they had just to muddle through as best they could.

One hot Sunday afternoon, my landlady, arrayed in her best bonnet and mantle, volunteered to show me the grounds. "We'll no' meet anybody," she said, with a sigh of reminiscence.

A long avenue of beech trees brought us to the entrance of the flower garden, shut in by high brick walls. The gate was unlatched, so we went in, and stepped into a sea of colour. Larkspurs of every shade of blue blazed at each other over unkempt, rose-covered trellises. Giant spiræas sprawled familiarly over sweet peas and carnations, while long lines of box stood defiantly a foot high, conscious that their day was past, when they could be trashed for over-topping. Through an open door in the wall could be seen a broad, shallow stream, sparkling in the sunshine and almost motionless, as if it, too, had been left behind and forgotten. "Only one gardener now, wi' a lad to help him," said a melancholy voice at my elbow, "and I've seen the time when there were seven. Could you imagine anyone wanting to leave sic' a beautiful spot."

Poor old body, in your decent black kid gloves and your jet-bespangled mantle! You cannot realise that the modern spirit dwelleth not in silent, rose-scented gardens, nor under the deadening calm of ancient beech trees. I do not know the young laird, with his pernicious habit of foreign travel, nor what his reason may have been for leaving his ancestral home (even after the installation of hot water pipes "to the very top of the house"), but the anchorless soul of the travelling dairy teacher was touched by the peaceful beauty of the place, only in so far as she knew

that she had not to live there. But these are not the things one can say to threescore-years-and-ten, with whom it was a point of honour that she had only spent three nights away from her own village in her life.

Peace be with you ! You were the first of the fifty-seven.

* * * * * * * *

A bitter tragedy has played its part in my career, and I nurse my rancour as a tender plant.

She was a little, dark Hampshire woman, with hair strained tightly back from her forehead and a mouth which was represented by one thin line. How came she to be in a small Scotch manufacturing town, or rather, how came she to have sprung from Hampshire ? A supreme contempt for all those whose principles were less rigid, whose backs were less straight, or whose window curtains were less closely drawn than her own, radiated from every pore. Her keen, black eyes looked down into my poor, shallow soul, and she despised me for the weakling that I was. That night she laid her plans. *She blacked my brown boots !* To some this may seem a venial sin, to me it was an act of refined and premeditated malice. She knew her victim. Excuse there was none ; I have two brushes.

I braced myself for the attack. When she brought in my breakfast I would allude casually to the fact that perhaps she had got hold of the wrong brush.

When she brought in my breakfast I made a feeble remark about the weather.

At tea, when she took away my boots (a happy inspiration !), I would say, pleasantly, " Oh ! by the way, Mrs. —— "

The boots were removed in silence.

At supper, most decidedly, " Perhaps the brown polish —— " But supper grew cold, while she held me with her eye and discoursed grimly on the flippancy of this generation. " People seem to have forgotten the Covenanters, who fought and bled for their faith." " Their faith," I echoed bitterly (but silently), " what about their boots ? " Over the mantelpiece hung a highly-coloured diagramatic picture showing, on the right side, the deeds and ultimate lot of the elect, on the left side, of the non-elect,

both very vividly represented. Above the door was a similar theme, worked out in curved lines and percentages. And as she reasoned of righteousness, temperance and judgment to come, I trembled. To-morrow would do to speak about the boots.

But to-morrow, and to-morrow. and to-morrow, and to-morrow crept on its tardy pace from day to day. Once, remembering Macbeth, I tried a little hot soap and water, but a knock at the door made me jump with a guilty start. Some paltry excuse for disturbing me was on her tongue, but I had not the heart to repeat the experiment.

There they sit, *pauvres petites !* a testimony to a woman's malice and a woman's weakness !

* * * * * * * *

Listen again ! I give you my excuse in the words of another of the fifty-seven (oh, lovely Caversham !), who was wont to say, after half-an-hour's babbling, " I hope you don't mind my nonsense, miss, but what I always say is, if I can't have my joke, I could never get through my troubles."

N.Y,

" LOOKING FOR WORK."

Do not be anxious ! I am not going to expound a new and elaborate National Employment Scheme, or any " dishing up " of an old one, that has been, or now is in force. I merely thought a few words on this subject, looking for and finding work, might be seasonable at a time when we hear such an outcry from all classes of the community, in which we may include dairy workers.

By these I mean Instructors, Managers, Assistants, and Maids. They all want work, at some time or other (or think they do) ! Then why raise so many difficulties in the way of getting it ? We cannot all be kings, and in the same way, we cannot all hold " Headships."

If one asks the average Dairy Student just launching out on their training what they are going to do when they have finished, what do they say ? " Teach I suppose " or " Manage a factory."

An older and more experienced hand will think twice before taking on the responsibility such as is entailed in these two positions. Not so the beginners; they think with one or two years training at a College where everything is to their hands, that they are ready to conquer anything.

Half the difficulty that is found in obtaining posts is the fault of the applicants. They are far too particular. Why not take any work that may be going, and stay at it for a time? By this means the College training is amplified, and experience is gained which will be of the greatest use. It should not matter how hard or rough the work is, for unless one has experienced it oneself, how is it possible to direct the operations of later on, to do the same?

In my first post, as an ordinary dairymaid, I started off to do as I had been taught when training, but much to my disgust I was not allowed to do this, but made to follow in the footsteps of my predecessors, and only after months of hard work was I able to gradually substitute "College" methods for those that had gone before, and during all this period I was constantly told that I did not know how things should be done in a dairy and had had no experience. But one gets used to this sort of thing, and it is a splendid training for the temper. I should like to say to beginners "Stick to your guns in your first post," and so long as you are in the right you will have your own way in the end. In this way dairy work will be carried on under better conditions, and a general improvement will be obtained in the produce throughout the country.

One gets a great deal of amusement in ones various "jobs," even if they do consist of the monotonous work of daily washing up the same milk pails, etc. During a holiday engagement, I was constantly receiving instruction from the old cowman who didn't approve of any new fangled notions. One day he stood and watched my butter-making operations. When I began to take the butter out with the scoop his face showed great disgust. "Here," said he, "I'll show you the way to do that," and putting me on one side before I could say a word, into the churn went his two grimy arms and he was bringing out the butter in handfuls. I must own that his method was decidedly quicker.

Another time when on my way to a travelling dairy class I had quite an experience. On arriving at the station I found the snow in that part nearly 2ft. deep and a driving blizzard blowing off the sea. No conveyance was to be seen, the only house near the station being an inn. I set off for the village, which was about $2\frac{1}{2}$ miles away, with the blizzard in my face. After struggling manfully for half a hour I found I had only accomplished about a hundred yards, so had to turn back. On arriving at the station again, I found a brewer's dray had arrived at the inn. After great persuasion I managed to get the driver to go in my direction; he hoisted me and my cream can to the top of his cases, covered us up with sacks and we set off. All went well until we arrived at a small incline, then one of the horses refused to move. Handing me the reins and whip, he pushed the wheels, meanwhile using the whole of his vocabulary, all to no purpose. He had to unload his van and carry the cases to the top of the hill before the horses would go on. By this time, being already about an hour late for my class, I left him and my cream to their fate. The sleet having abated, I trudged on to the village. There I found about half-a-dozen students shivering round a fire, so after talking to them for an hour or two on the weather *and* butter-making, and drying myself meanwhile, I let them go. The cream arrived in the evening in the form of "ice cream."

Students note-books, too, afford a great deal of amusement. Looking over one the other day after having given a lecture on the uses of food I found, among other points, "To keep up the eternal organs," which appeared to me rather an advanced school of thought.

One day, asking another student what an enzyme was, I received the following answer, "Isn't it something we don't know very much about?" Then, the questions one is constantly asked such as "Why not use sea water for brining if the other method is expensive," "How do they make macaroni from Italian wheat." "What is the commercial method of obtaining sulphuric acid." These cover, to say the least, quite a wide range of thought, and require careful answering or one finds oneself in a hole, from which it is difficult to get out, for the inquiring student

will not put up with an answer that commences with "It all depends," &c.

But these little occurrences all add spice to ones work and make dairying from start to finish the most enjoyable work we can go in for.

There is a great deal of drudgery at the start, but that will be found in any kind of work, and when one has got so used to swilling floors, cleaning brasses, and scrubbing tables, etc., so as bring it up to a fine art, then any work that may come after will be enjoyed.

I know it is very easy to "sermonise" on paper and very difficult to put such ideas into practice, but I am confident if dairy students on leaving College would only be prepared to take the rough with the smooth, they would not find half the difficulty they have at present in obtaining posts.

"ONE IN WORK."

THE KINGSTON BARD.

A deathless bard has arisen in our midst! Deathless, he must be, or he would have been killed long ago. Two examples of his power will be quite sufficient. We trust to be forgiven for introducing him and decline all responsibility for his caustic comments. His parody on a famous hunting song will appeel (printer's error!) to all.

D'ye ken the breakfast's now at eight?
D'ye ken what you'll get if you're a bit late?
D'ye ken a person sitting in state,
With the most awful glance in the morning?
For the sound of the bell brought me from my bed,
And the thought of that glance which we all times dread;
So we dash across half undress-ed,
For the breakfast at eight in the morning.

D'ye ken the "Lab" with it's smell so strong?
We are testing manures, so we shan't be long!
And—Oh my word! That's an egg gone wrong!
We swear it was not laid this morning.
For the acids and things we are apt to spill
Would make a foreign foe feel ill,
At a thousand yards 'tis sure to kill,
When we've been in the "Lab" in the morning.

D'ye ken the Lake on which we skate?
Some go slowly and some at a rate,
Some on foot and some on their pate,
Till the ice gives way without warning.
Then we hear a shout and an awful splash
As the chap drops through with a fearful crash.
We may see the bones again in the hash!
They will flavour it well in the morning.

The above is an example of the poet's skill in tragedy. We will now proceed to exhibit his more comic effort on that haven of rest, the Hostel.

Oh! the hostel is a perfect place in which we're wont to swot,
We collar all our Note Books and we learn the blessed lot,
We have a little "Swot-Room," where the air is somewhat warm,
And we sit upon the splinters which adorn the ancient form.

You take a ball into the room, and hear a little smash,
It costs you two-and-sixpence, which you pay in ready cash;
And when we have a Whist Drive, and you lean back in a chair,
Your head will break another pane, which cuts off half your hair.

The toasting forks you see at night, will stand your hair on end;
And if by chance you sit on one, your trousers need a mend;
And, after supper, if you box, your nose will get a rap,
And you will hear a friendly voice say "Come lad, go t' tap!"

Still the hostel is a merry place, we often get some fun;
We think for quiet and solitude it fairly takes the bun;
For when we're sleeping peacefully, our faces wreathed in smiles,
There are five-and-twenty pussies making music on the tiles.

F. L.

ON THE ELECTION.

Non-Political.

I got a daily paper and read it thro' and thro,'
And, after careful thinking, methought I was a Blue.
The explanations suited. Said I "That's just my view,
A Tory I, from floor to sky, I'll vote for Empire blue."

I got another paper, and yellow was its hue,
Once, twice, and thrice I read it. Quoth I "I'm not a Blue."
The arguments I followed. Quoth I "Old Joe's a fool,
I'm Liberal for once and all. I'm going for Home Rule.

And then I went to meetings and wondered which to choose,
Sometimes I favoured "Yellows," sometimes I favoured "Blues."
And oft as I attended, as oft I changed my coat;
But found too late—sad to relate—that I had got no vote.

J. S. M.

CONDITIONS OF DAIRY FARMING IN SOUTH AFRICA (NATAL).

I suppose the first thing to attract the attention of a stranger who goes into the farming districts of South Africa would be the immense tracts of unoccupied land. There is, certainly, a very large area of it, and most of it is owned by private people.

A single farmer may have as much as 60,000 acres, 10,000 of which may be beneficially occupied, and the remaining 50,000 practically derelict. What a difference it would make if these 50,000 acres were split up into say 50 farms, with a thriving family of Europeans on each one of them.

Just to take a commonplace example!

If these 10,000 acres, occupied and cultivated by the one man, produce 500 galls. milk per day, it would be quite reasonable to expect the 50,000 acres under 50 farmers to produce at least 2,000 galls., which is quite enough to support a good cheese factory.

It will be a great day for South Africa when such a case as the one mentioned becomes a reality.

At present there are only two Creameries in the Colony of Natal; how many will there be when the possibilities of dairying are fully grasped? Perhaps a few methods of the average South African farmer will be interesting! The majority of them like to sit on the verandah and shout the orders of the day to the "Head Kaffir" who, by the way, usually knows as much about good farming as good farming knows about him.

What the Kaffir likes to do is to sit at his Kraal six months. He grows a good patch of mealies, and if these are a good crop, he will usually sit for twelve months, but if a bad crop, he has to go out and earn his tax money.

It is this man who has the orders to carry out, no matter in what fashion, but carried out they must be.

Contrast this management with that of the average farmer in England or Scotland, and see what you get. To illustrate this slipshod method of doing work, witness the ploughed field with its 20-30 yards 'headlands," which, of course, never get touched. If one wanted to see a farmer at home almost insane, let the ploughman leave a 'headland' nearly as large as the above-mentioned.

Another instance is "milking!"

This, too, is not of a very high order, and the black man, as usual, has it to do.

The calf has a go first, then the darkie, with his wet, dirty hands; a thumb and finger only is needed.

The movement they execute can best be described by a practical analogy. Take a stuffed sausage skin, hang it up, and try to get the contents out by working the thumb and finger down it.

This sounds very bad, but it is merely an example of what is going on all round. Now we will take the farmers' point of view. He says, "Everything will come right, why should I bother about things? I have plenty of land; my natural increase of stock is enough to keep me living happily and, in my way, luxuriously. I have plenty of spare time to go to any sporting entertainment offered; what more do I want?"

"My farm is my own, and my family will follow in my footsteps and live as easily as I do. Do you think I am going to get up early in the morning and see that the Kaffirs wash their hands before milking? Do you think I shall take the trouble to trade out my unprofitable animals? No! not while these I have already keep me in such opulence.

Then we have to answer: "Of course you will not improve things until force of circumstances make you. Wait until the public demand the best and purest of produce, then you will either have to boss up or go to the wall, for you will never be able to compete with the man who looks after things and produces everything of first quality."

It is encouraging to note that we have an ever-increasing number of the latter.

G. F. Slinger.

A DAY'S WORK IN THE DAIRY DEPARTMENT OF THE WORCESTERSHIRE POULTRY FARM.

Being an old Kingston student, a short account of the above (my present work) may be of interest, as it differs somewhat in character from practical dairying in College.

Work commences here at the early hour of 4.45 a.m. Not altogether due to living up to the old saying, "Early to bed, early to rise, &c." so much as to the fact that milk has to reach Birmingham early (13 miles distant), most customers preferring new milk in time for breakfast. There are about 90 cows in the herd, all of which have passed the Tuberculin Test. Everything is done in an up-to-date manner and great care taken throughout to ensure perfect cleanliness and the milk is frequently tested for quality.

The men who arrive first commence their duties by washing the udders of the cows, and general cleaning up. Next to arrive are

the milkers. Shortly after this the dairy is opened and work begins in this department. Owing to the milk leaving the dairy by 6.15 a.m., this is the busiest part of the day.

As the milk comes in it is put through the clarifier, which consists of a fine gauze strainer and two Filtrex cloths; then the milk runs over a refrigerator (and in summer months over a second cooler through which a brine of salt and ice is pumped).

It is then poured into the Disc Cover bottling machine, which fills the bottles automatically. About 36 gallons daily are used up in this way, the remainder going away in 17 gallon churns to various customers, and the surplus milk separated. The Alfaa Laval separator being employed for this purpose.

The cream is used up in cream orders, and for cream cheese, the separated milk being fed to calves.

When this part of the business is finished, and the milk sent down to the motor boat on the Birmingham and Gloucester Canal, by which means it is conveyed to town, the bottling apparatus is taken to pieces and washed.

Then comes a short rest for breakfast, and, after that, there is the separating to be done, cream cheeses to make, butter to make up, general cleaning up, and booking of stock and sales.

This usually fills up the morning till luncheon, which is another welcome break.

Next item on our programme of day's work is the bottle cleaning, which takes from two to three hours, about 200 bottles being required daily.

By the time these are washed the evening's milk is arriving, and has to be clarified and cooled. Local customers come for their various pints and quarts.

The cooled milk is filled into churns to go away next morning, and all orders that can be got ready are put forward to help the morning's work.

This concludes an ordinary working day. I may add that during two autumn and winter months there is also fruit to pack (apples and pears) for market and private customers, which are delivered with the milk.

"Fritillary."

A DAIRY STUDENT'S MUSINGS.

To be a Dairy Student at our College is one of the joys of life. Students are given every opportunity to practice early rising. This is no doubt beneficial, for we learn, on good authority that :— "Habitual practice constitutes a method."

If I were to attempt to give a full description of Dairying as it is and was, and hopes to be I should require more space than is at my disposal. However, since "Brevity is the soul of wit," I will be brief.

From the early hours of the morning to noon, students receive instruction as to the correct manipulation of cheese in all its forms.

We are told by an Elizabethan Dramatist that "All the world's a stage."

Similarly cheese-making may be regarded as a stage, for cheese has its exits and its entrances and each one in its time plays many parts.

When making a cheese a definite quantity of milk is carefully placed in a suitable receptacle.

This milk after receiving additions and suffering subtractions, is skilfully handled until it is changed from its natural state. The transformation is so pronounced, that one is reminded of the words of the poet who said "The old order changeth yielding place to new." After many bright and varied scenes the contents of the vat are turned out as curd. This presents a very cut up appearance, but is afterwards consoled by being squeezed and pressed, The curd is then made into cheese form and passes from one room to another in which it is allowed to pass the night. The final stage is one of swathing and embalming,

We now have the cheese made. Everything both organic and inorganic may now be traced to its original source. Vats are cleaned, brasses polished so it is seen that the energetic student "leaves not a rack behind."

F. H. BATH.

FRUIT-GROWING IN WESTERN AUSTRALIA.

About 170 miles south of Perth (W. A.) lies Bridgetown, the centre of a fruit growing district which is ever increasing in size and importance. Around this picturesque little town the country for miles is heavily timbered with Red Gum and Jarrah trees, with an undergrowth of Banksias, Wattles, Blackboys, Peppermints, etc. Here in this dense forest, or 'Bush' as it is called, farmers have taken up land, cleared some of it, and planted orchards. These orchards, owing to the very favourable climatic conditions, have proved and are proving very prolific and remunerative.

The fruit harvest begins towards the end of December with the early peaches and continues almost without a break till the end of April when the late apples, such as the Rome Beauty and the Ropewood, are picked.

During this time the fruit-grower is a very busy man, owing partly to the scarcity and high price of labour, and partly to the fact that not only has the fruit to be picked, graded, and packed, but also, in the majority of cases, it has to be carted eight or ten miles to the station over a rough hilly track cut through the bush. Moreover the fruit-cases have all to be made on the farm with either Swedish pine wood or the native Jarrah wood which is purchased cut up into proper lengths.

To show how prolific fruit trees are in the South West, I have seen in a neglected orchard, peach, plum and apple trees with many of their branches broken down with the weight of fruit and, in one instance, a pear tree which had not a single branch unbroken. Careful farmers of course prop up heavily-laden banches with forked sticks which are easily procured out of the bush.

All stone fruits are sent to local markets, apples being the only fruit exported to any extent up to the present.

Christmas finds everyone busy with the apricot and early peach crop. Early in January one or two varieties of plums and early apples are ready for picking. Varieties of Japanese plums are more extensively grown than English plums as the Japanese trees bear more profusely and at an earlier age than English varieties do.

The plum harvest lasts right through January and well into February. The Burbank and Satsuma seem to be two of the most popular Japanese plums while the William's Favourite, although of a dry, soft nature, holds the first place among early apples on account of its rich colouring.

In February the early nectarines are picked and also the Bartlett pears (William's Bon Chrétien). The last week of the month sees the first consignment of export apples on its way to Covent Garden.

The Jonathan is the chief export apple although the Cleopatra and the Dunn's Seedling (alias Munro's Favourite) are also sent home.

Export apples require very careful handling. They are picked and stored for a few days previous to packing to allow their skins to toughen. Each apple has then to be wrapped in sulphide paper and packed in such a manner as to prevent all possibility of it rolling about and thus bruising not only itself, but its neighbours in the case.

Exporting apples continues on some farms for six weeks, during which time the late peaches have to be gathered and the grapes, where grown, have to be made into wine.

During the summer months it is necessary to harrow the orchard occasionally to keep a layer of fine loose soil on the surface for the purpose of conserving the moisture underneath.

There are several other fruits which do well in the South West, such as the orange, lemon, quince, fig, etc.

Space does not permit me to do more than just mention these fruits, nor does it allow me to go into details concerning the planting and winter and summer pruning of the fruit trees. These operations, however, seem to be conducted on much the same lines as are followed in England.

OLD KINGSTONIAN.

[P. S.—Perhaps the most pleasant experience I had in Western Australia was in Perth Cathedral where, quite accidentally, one Sunday evening, I met H. G. Bray who was at Kingston with me. Two days later he was on his way to the North West and I was sailing for the East.]

A SHORT ACCOUNT OF A TOUR IN RUSSIA AND SIBERIA.

BY E. F. HURT, N.D.D.

I only spent three and a half months in the Russian Empire, but an account of my impressions and experiences would fill the M.A.D.C., Magazine and even then, in all probability, I should not have adequately described life in a Siberian village or the few days I spent in Warsaw. So I must give you a brief outline of my trip, without dwelling on any particular feature.

What will probably make this article more interesting is the fact that I made a round trip, going out by sea to St. Petersburg, and travelling to Siberia through the forest lands of Northern Russia, and returning *via* the vast cornfields of the Volga, Poland and Germany.

"The "Imperatorza Alexandra" sails from Millwall Dock at 12 p.m., if the tide serves, and passengers are requested to be on board by 11 p.m."

Such was the notice sent me by the Wilson Line two days before sailing.

Accordingly I arrived on board at 11 p.m. on the last Friday in June, only to discover that we were not likely to leave the dock much before 4 a.m., as we were very heavily laden and should need more water than usual. I soon struck acquaintance with an Englishman returning to Petersburg, and as it was a fine night we decided to sit up on deck and watch the process of "warping" the vessel out of the dock. First we saw the Riga boat, less heavily laden than ourselves, manœuvred out through the dock gates soon after 2 a.m. Towards three it was reasonably light, and we could watch the innumerable tugs with their strings of lighters, and the other miscellaneous craft of the Thames, hurrying up and down the river on the incoming tide. We got into the river about 4.30, and I waited till we reached Greenwich, then sleep forced me to my cabin.

When I went up—or rather "forrard," for I had a deck cabin—to breakfast we were well out in the North Sea. The morning was spent in inspecting our cargo above deck, i e., some dozen Russian horses, with their soldier grooms, returning from Olympia, among others the famous "lepper" and the three white Troïka horses. I obtained some interesting photos on deck of the grooms and their horses. One photo showed the three Troïka horses with their driver at the side. The latter, poor man, though we had very little rough weather, wore a perpetual sea-green hue on his countenance and never left his horses. In fact he looked thoroughly wretched, and it was a matter of discussion as to whether he ever left them even to feed. He was seen at his post at all hours of the day, and I had seen him in the wee sma' hours.

After a glorious day the sea began to get up towards evening. By ten o'clock it was blowing hard, and from my bunk I could see, as we passed round the north of Holland, at one moment the lights on that long string of islands, at the next the stars above. I did sleep well after I got used to my bunk, for I like it rough. Unluckily my cabin was over the screw and set abeam, so that I not only had my feet above my head one instant and just saved myself from a foot-first dive into the floor next, but also had the awful jar of the shaft every time the screw left the water as the vessel topped a wave. This latter sensation is rather like that of a dentist's drill—a kind of whirring throb on a large scale.

On Sunday we saw a large amount of shipping, mostly Norwegian wood barques, some German war vessels, and several large liners from Hamburg, as we passed up the estuary to the entrance of the Kiel Canal or, as the Germans like it called, the Kaiser Wilhelm Canal. We were twelve hours getting through the canal, and passed the Kiel end at 2 a.m. on Monday. The canal is not wide enough for two vessels to pass except at special points, so we were lucky in only being forced to tie up once. Germany is busy doubling the breadth so as to allow of the passage of two men-of-war at a time, and the huge dredgers and steam diggers were extremely interesting. There are several swing railway bridges across the canal, but the greatest marvels are the two high level bridges on which the railway passes far over the tops of the highest masted vessels. All along the country on either side is

comparatively flat and uninteresting. From now on we enjoyed beautiful weather till we arrived at Krondstadt on Wednesday afternoon, where we were greeted with fog and rain. The fine, bright weather allowed us splendid views of the Swedish coast and the islands that dot the Baltic on both sides.

An English gentleman informed me that he had lived 30 years in Petersburg, and that he had just made his first trip to England for 19 years, and that after the weather in Scotland and London in May and June he hoped never to return again! Personally, in spite of our hot summer this year, I don't wonder foreigners call England the Isle of Fogs.

At Krondstadt we were boarded by the Customs officers, who stay on board till the vessel reaches Petersburg. We were now taken in tow up the Neva by a tug, as the channel is very narrow. At the mouth of the river we passed a large number of Russian torpedo boats and, later, the royal yacht. Soon after leaving Krondstadt the sun came out and, looking back, we saw the dazzling glare of the golden dome of the Cathedral of Krondstadt, rising high above the town and forts. Each side of the Neva is wooded, and among the trees on the south side is situated the Royal Summer Palace. Nearer Petersburg are pleasure gardens, situated on semi-islets in the river. An hour's tow brought us to the quay, and after a search by the customs and much sealing, stamping and signing of passports we were allowed off the ship.

The drive from the quay to the hotel, occupying about half-an-hour, was over the worst paved cobbled streets imaginable. Think of holes a foot deep in an English street, even near the docks! There they are the rule rather than the exception.

I spent till Saturday in Petersburg. The Nevski Prospect, the main street, three miles long and nearly a straight line, is the only wood paved street in the city; all the rest are cobbles. Down the Nevski run electric trams, first installed by the Brush Electric Works, of Loughborough, while on either side are fine buildings, offices, gardens, cathedrals and curious little shops with steps leading down from the street, mingled in an extraordinary haphazard fashion.

This street, though very fine, is too modern, too like a bit of Paris for Petersburg. The rest of the town has more of the old Tartar world about it, a strange mixture of the Oriental and the Greek and the Byzantine in architecture, and essentially belonging to a people who say, "It does not matter," or "To-morrow will do."

As the white nights were on, one could read a newspaper in the streets all night without a light, and the sun never seemed to set. I paid a visit to an open air theatre two evenings, or rather nights, as the show for the "monde chic" does not start till midnight or 1 a.m.

It took two-and-a-half days in the train from St. Petersburg to Siberia—that is, Chelyabrusk, the junction of the North and South lines from Russia, the well-known halt of the convict gangs of old, and the last town of any importance in Russia.

From Petersburg to Chelyabrusk the lines run through birch and fir forest. The trees come on each side to within a few yards of the line. The monotony of the white birch trunks was only relieved by a cow on the line, a halt and a walk or a protracted meal on board. The heat was awful, and one could not open a window on account of the flies and the dust caused by the sand ballast. Mounting the Urals reminded me of entering Switzerland from France, and here we got rid of the dust and flies, breathed mountain air and saw fine rock faces and large swift streams.

Over the border the country changes. Siberia is flat—not a desert like a billiard table as it is generally painted, but rolling steppe, covered with good fine pasture, broken by low hills, ravines, meres, forests of birch and fir and cultivated corn land. The soil is rich, black alluvial deposited yearly by the rivers flooded by the melting snows. Everywhere are villages, collections of mud and timber houses, and wattle cattle sheds built either side of a long street. At intervals along the railway are towns of 30,000 inhabitants and upwards. These mark important centres of the pork industry, egg or butter export trade, and further east are mining towns. Western Siberia was my limit. The staple industry is butter and casein made by the village co-operative creameries and sold in open market, often after having come 200 miles by horses, to English, Danish and German buyers for export. At its best

a finer product this than prime Danish. This butter is exported to Poland, England, Germany, Switzerland, Holland, Denmark, even to France. Cold storage factories for salt beef, pork, eggs and sausages are rapidly being put up. The pigs are crosses of the middle white and the native pig. I have seen a pure bred Siberian pig take a 3 ft. 6 in. fence standing!

Country travelling is done with two or three Khirgese ponies, one only in the shafts, the other one or two galloping. Arabs are used for riding short distances. A Khirgese pony is not elegant, has a trot like a dog—gallop behind and trot in front—but will stay at a trot for 30 miles and do 70 in 6 hours with an hour's rest.

There are no roads in Siberia. On the steppe one goes where one will. In the towns and villages the streets are awful, deep dust in summer and two to three feet of mud in autumn and spring, for there is no stone in Siberia with which to lay a foundation. In winter the tracks are excellent, though owing to the undulating state of the country, it is no uncommon thing for anyone to be "seasick" first time out in a sledge.

The drawbacks of Siberia are: in summer, lack of water, dust, great heat and flies; in autumn, mud and rain; in winter, extreme cold. The advantages are: very heathy, dry climate, cheap living, plenty of sport and fine country, both for agricultural purposes and picturesqueness. Owing to bad streets horses often get hopelessly bogged in the mud, and sometimes even drowned!

I soon picked up sufficient Russian to get about and live. In fact, I had to when I was in a village away from English-speaking people, telegraph and post offices.

My journey back was by the south or Moscow line. We crossed the south of the Urals, looking lovely with the fir forests all under snow. To Moscow from Kourgan took two-and-a-half days. On the second day we crossed the Volga by the great bridge, built on the Howe Truss system, and $\frac{3}{4}$ mile in length. The line follows the banks for some 18 miles and the shipping is most interesting, especially the huge rafts of timber from the north on which huts are built for the crews.

After this, towards midday we found ourselves in the corn lands. Miles and miles of flat red-brown country, only relieved by

villages surmounted by a green or blue domed church—a thing seen from afar—or by ravines. We went to bed in corn land, and awoke in, apparently, the same spot.

These long distance trains are very comfortable, with ample bed room—being 2 ft. wider than an English carriage—and the feeding is excellent. Fresh fish, fruit, vegetables and game are taken up en route and served by Tartar waiters.

I only spent a few hours in Moscow. It is not a healthy-looking City, but its quaint, narrow, cobbled streets, its old gateways and walls, and its innumerable glittering domes and minarets, strike the true note of the Orient which should show itself in the old Tartar capital.

The following day we passed into Poland. Its sand dunes, solitary Scotch firs, and straight white roads lined with trees, reminded one more of Northern France or Belgium.

Warsaw is a delightful town; modern, well built, with wide streets shaded by trees, it reminds one of the ideal—the clean and orderly—Paris. One sees at once the latest modes, people in European clothes, and notes the absence of the Russian moujik (peasant), in top boots, with his shirt outside his trousers and tied in by a broad belt, and sees instead the furtive Jew in long coat and curious, little peaked cap. Everywhere are soldiers and uniforms. Every official under the Russian Government wears a uniform! Owing to past riots and oppression the Jew dreads a soldier; he may not wear a uniform, therefore he dreads all uniforms, and has long acquired a slinking walk and a fearful countenance. But he holds all the money and the trade. Therein lies the cause for hatred and the excuse for oppression.

I stayed a week in Warsaw, and came home by Germany and Holland; as, however, the editor will no doubt cut out half of what I have already written, and will not allow me a special supplement, I must leave the greater part of my impression unwritten and, like my journey, end.

COPYHOLDS.

By Frank James, F.S.I.

During my experience as a Land Agent I have been asked by farmers the following question, "What do you mean by copyholds, and what are they?" In the limited space I have at my disposal I will try to briefly describe a copyhold.

The subject is one peculiarly connected with olden times of English history and reminds us of the feudal manor and the ancient village community. Estates in copyhold are essentially distinct both in their origin and in their nature from those of freehold.

Definition of Copyhold.—Copyhold lands are lands holden by copy of court roll; that is, the muniments of the title of such lands are copies of the roll or book in which an account is kept of the proceedings in the court of the manor to which the lands belong, for all copyhold lands belong to some manor. An estate in copyhold in construction of law is merely an estate at the will of the lord of the manor, at whose will copyhold estates are held. They are also said to be held according to the custom of the manor to which they belong, for custom is the life of copyholds.

Origin of Copyhold.—Copyhold tenure grew out of tenure in villenage, which is a feudal tenure of lands held by one who is a villein or serf at the will of the lord. The cultivation of land upon the common, or open field system, of husbandry by the members of a village community was a feature of English life. A lord possessed of a large area of land, called his manor, was unable to utilise the whole for his wants, so he divided it into four portions, one of which he kept in hand for his own peculiar necessities and pleasures, a second consisting only of arable land, he granted to freeholders and their heirs, and in order to meet the grazing wants of their cattle he handed over a third portion of his land for their common use (the origin of our modern common rights); the fourth and last portion of the land he divided into small plots for his villeins, over whom he exercised powers so plenary as to stop short of their lives only. On the death of one of these a kindly disposed lord would often allow the son to succeed on certain conditions;

they generally held their land by performing such services as ploughing the lord's land, or doing other field labour for the lord, and by rent in kind and money.

GROWTH OF COPYHOLD.

The law of copyhold seems to have grown up as the customs, which regulated the holding of land in villenage, developed into rights, and personal bondage died out. Copyhold tenure appears to have gained ground with progress varying according to the customs and circumstances of particular manors and district. Commutation of the labour services for money rents was doubtless one of the chief causes of the change from tenure in villenage to copyhold tenure. The tenure became to be called copyhold because the tenants had no other evidence of title, save copies of the court rolls. The customs relating to the holdings of the tenant in villenage were proved by the entries made in the rolls, which formed the records of the proceedings of the manorial court. These records are the court rolls which alone can furnish evidence of the custom, by virtue of which the copyholder claims his estate, and copies of the entries made therein were given to the tenants and kept by them as muniments of title. Originally the whole village community was represented in one manorial court, but according to later law, the Court Baron of a manor, in which the freeholders of a manor were suitors and judges, is distinguished from the court held for the customary tenants, the latter being called a Customary Court and the lord only, or his steward, being judge therein.

TREES AND MINES.—The custom with regard to the trees growing upon the copyholder's tenements and the minerals, whether on the surface of the ground or underneath it, varies considerably on different manors. The general custom is that both trees and minerals belong to the lord, but the tenant has the possession of his tenement, and the lord cannot enter and take what belongs to him without the tenant's consent has first been obtained. The tenant has a right to take a reasonable allowance of the timber for repairs and fuel, and of the minerals, such as sand and stone, for husbandry or repairs, and peat for fuel, though the custom of the manor may define his rights. Under the tenant's right of estovers, he is entitled to the underwood and to any trees not timber, and to

the lops and tops of pollards; so where a tenant planted a tree or where trees were naturally regenerated, it was quite usual for the tenant to cut them periodically, or to pollard them before they became timber, so as to defeat the lord's title. Every discouragement to the tenant to have timber upon his land is clearly shown by this general custom, and therefore copyhold land has been called treeless land, because it is so bare of trees.

FREEBENCH.—On many manors there is a general custom whereby the widow is entitled to an interest in her husband's land. This interest is called freebench, and custom decides the duration of this freebench. As a general rule the widow's estate lasts for her life unless she marries again, when it is at once determined. The quantity to which she is entitled varies according to customs, but perhaps in most ordinary cases she would be entitled to one-third.

CUSTOMARY COURTESY.—There is also a customary courtesy of man's freebench, as it is sometimes called, which entitles the husband to an interest in his deceased wife's copyholds. The four circumstances which are requisite to make a tenancy by courtesy in England are marriage, seizin of the wife, living issue, and the wife's death. The rule that the child must have been heard to cry, which at one time followed in England, is still adhered to in Scotland. It is not necessary, however, in either country that the child survive, it is enough that it was once in existence, although it might have died immediately after its birth.

HERIOTS.—A curious incident to be met with in the tenure of some copyhold estates is the right of the lord, on the death of a tenant, to seize the tenant's best beast, or other chattel, under the name of a heriot. Heriots were English institutions before the Norman Conquest. It appears to have been the custom in many places that a lord of a manor, who took a man to work on his demesne as his tenant in villenage, should furnish him with oxen, a cow, sheep, and implements of husbandry as his farming outfit. These remained the property of the lord and reverted to him on the tenant's death, but were usually transferred to the new tenant along with the holding. As time went on it became an established custom that the tenant's heir should succeed to his deceased ancestor's holding, and that the landlord should not take into his

own hands all the deceased tenant's cattle and stock, but should only take the best beast or some other chattel. The right of the lord is now confined to such chattel as the custom of the manor, grown into a law, will enable him to take. The kind of chattel which may be taken for a heriot varies in different manors, and in some cases the heriot consists merely of a money payment.

Fealty.—Fealty is a personal service, due by the tenant to the lord upon admittance or change of lord, consisting of taking an oath to be faithful and to observe the custom of the manor. It is often commuted to a trifling sum, but even at the present day it is sometimes enforced with a good deal of ceremony.

Repair.—By a general custom of copyholds, it is the duty of the tenant as one of the conditions of his holding to keep his tenement in repair, and not to commit, nor to permit waste either voluntary by opening mines, cutting down timber, or pulling down buildings, or permissive by neglecting to repair. For the land with all that is under it or upon it belongs to the lord, the tenant has nothing but a customary right to enjoy the occupation, and if he should in any way exceed this right a cause of forfeiture to his lord would at once accrue.

Escheat.—In the event of a copyhold tenant dying without a will and without heirs, the estate escheats to the lord of the manor.

Descent.—The modes of alienation and succession to copyhold tenure are the outgrowth of local customs which in many cases are of great antiquity. Sometimes the customary course of descent is analogous to the course of descent prescribed by law in the case of freeholds. But in many cases quite a different course of descent is prescribed by the custom of the manor. The memory of the time when the tenant's heir was admitted to succeed by virtue of a custom only, and not as a right, is preserved by the fine, which the lord is generally entitled to exact on the heir's admission, and the form of transfer by favour of the landlord is also preserved in the mode of alienation of such estates, for the copyholder cannot convey his estate directly to another, but must surrender his holding to his lord, who will then admit the alienee to be his tenant at the customary services on payment of the customary fine.

Tenure in Burgage.—At the time of the Norman Conquest there were several towns of importance to be found in the country, amongst others are London, Nottingham, Derby, and Lincoln. In these and other towns a species of free tenure was created known as tenure in burgage. The burgesses as they were called held their houses and lands of the lord of the manor by payment of a money rent, and the customs relating to the holdings were often most advantageous to the tenants.

Borough English.—Among the more notable of such customs may be named the custom of descent known as Borough English, by which the youngest son inherited the land on the death of his father, instead of the eldest doing so, as was usual elsewhere.

Gravel Kind.—Another custom of descent which is very ancient, is that of Gravel kind, which prevails chiefly in the county of Kent, and upon the death of a tenant in fee intestate, the estate is not governed by the common law rule, which gives the land to the eldest son, but his land goes to all his sons in equal share. It is also a remarkable peculiarity of this custom that, although by common law no one under the age of 21 years can make a binding disposition of his land, a tenant in fee of Gravel kind lands, is able, at the early age of fifteen years, to dispose of his estates.

Lease of Copyholds.—Generally speaking a copyholder cannot without the consent of his lord, grant a lease for a longer term than one year. There may, however, in some manors be a custom authorising longer leases without such consent. Since 1887 the Copyhold Acts have practically put a stop to the creation of new copyholds, and the Copyhold Act of 1894, section 81, states that "It shall not be lawful for the lord of any manor to make grants of land not previously of copyhold tenure to any person to hold by copy of court roll, or by any customary tenure, without the previous consent of the Board of Agriculture." This Act also gives the power to obtain Compulsory or Voluntary Enfranchisement of all copyholds and thereby convert them into freeholds, though the lord would still be entitled, in case of an escheat, to the same right as he would have had if the land had not been enfranchised.

Also under the Copyhold Act the lord and tenant respectively retain their rights to mines and minerals unless they expressly agree to sell them.

A DAY WITH THE NORTHERN COUNTIES OTTER HOUNDS.

By a Quadruped.

With joyful yowlings and tails in air we streamed out of the kennels, in the grey dawn, and led the master and the whips to the banks of the swirling stream where otters had been seen pursuing their nefarious occupations, in happy ignorance of the doom about to fall on them by our agency. A portion of the hunt followers soon joined us—men and women, boys and girls, all armed with sticks and poles, imagining that *they* were hunting the otter—poor creatures supplied with only half our number of legs and sadly deficient in tracking abilities. All they can do is to make an unearthly noise when they actually *see* the quarry!

We nosed along for some miles, our choleric master fuming and raging at the lack of success, and venting his wrath on any unlucky person who happened to cross his path.

At last there came a meaning howl from the forwards and a sleek brown head emerged from the water for a moment, then dived, leaving a train of bubbles directed towards the bank. The chase was hot for some minutes, and Master Otter, seeing his escape cut off, made his way up the bank and shot across the fields to a belt of trees, which screened a fair-sized pond. There were any number of holes round the bank and we had an exciting game of hide-and-seek for a long time. Finding the place too hot for him, the otter again took to the open fields, but this time we sighted his departure, and in a few seconds there was a howling mob fighting over his body. When the master had taken his toll, and we had disposed of the remains, we again joined the river, and were soon on the scent of another otter. He was headed, and baffled us somewhat by re crossing the river several times, and as the banks were thickly planted with willows at this part, the followers waded through the stream and impeded our progress. I have known members of the human species who dislike wetting their feet as much as a cat does, and if we had only those specimens to deal with it would be a good

deal easier to pick up the scent. However, some of them were of service to us in keeping the otter to a certain section of the bank, and we gave him a pretty hot time of it. As soon as he put an inch of nose above water there was a wild "Tally ho!" followed by a headlong rush to the spot, but the quarry found refuge time after time in one of his excavations under the bank.

The whips plunged in and prodded the thick fringe of grass and rushes with their poles, while we hung round expectantly, hoping for material to satisfy the pangs of hunger which had only been intensified by the succulent scraps, snatched out of the wild scramble after the last kill I believe if an apoplectic fit had stricken down the master in mid-stream and dimmed the quelling fire of his eye, the pack would have been ready to accord him the same honours he was burning to inflict on the little brown creature whose life depended on his wilyness, and on whose death depended our dinner.

The less energetic members of the human species soon got tired of running up and down the bank, and spread themselves out in the shade, and proceeded to devour the contents of various baskets and hampers, which process seemed to afford them the liveliest satisfaction; the only exceptions being a few careless persons who discovered with pain that they were sitting on a wasps nest in a state of active eruption.

At length the otter showed unmistakable signs of surrender—numbers will tell—and with a last despairing effort he climbed the bank. With cries of joy we hurled ourselves upon him, and were credited with the finest kill of the season.

The master's rubicund face beamed with satisfaction as he dispensed the trophies of the chase, but the inward satisfaction was ours as we fought and scrambled for the morsels which had filled so large a space in our minds all day, but now—alas! filled so little in our bodies!

The order was now given for home, and when all were mustered we trotted off, filled with anticipations of another day's sport which should eclipse the last.

"SELF-MULTIPLYING" TEXT BOOKS.

The writer is satisfied that there are none present at the above library at any time between 2.15 to 2.30 p.m. daily who shares the view of Lord Rosebery, that a library was a "mere cemetery of books" which ought, for the most part, to be destroyed in the interest of literary elbow room. The complaint was no new one. It was as old as "Old King Cole," though not shared apparently by any Student resident at Kingston College, judging by the number of Students of both sexes who are to be found applying for the loan of the treasures contained on its shelves.

Lord Rosebery, if he understood his proposals correctly, was a literary Herod, who would only be content with massacreing the innocents—like the members of some savage Chinese tribes, who, when there had accumulated in course of time a superfluity of females—(mothers and baby girls, and perhaps a few mothers-in-law)—conducted them to a lonely spot and placed them in caverns cut out of rocks made specially as receptacles, and left them there, with exhortations not to be depressed at the absence of all means of future subsistence.

There are books which are unmistakably bad (not in our library), and books which are unmistakably good (found in our library). In our library there are none of the infinite multitude which could not definitely be placed in either category. It is this class of book which constitutes the difficulty.

Who is to sit in judgment upon them ?

There is, however, a class of book uudeserving of the smallest mercy in some libraries. I refer to the "obsolete text book," which next to a pet tiger, was the most dangerous of possessions, especially if it rested, as so many did, on the shifting theories of agriculture. Theoretically, a library like ours should, I suppose, be strictly limited to professional text books. I am profoundly thankful that this narrow view has not been suffered to prevail here. (We have a fiction library also.) I have known libraries of this kind. They are the most dismal spots on earth—not even excepting the lecture room when endeavouring to express on the examination paper how much we know of the Anatomy and Physiology of Entomological or Zoological Phenomena, or to

attempt to express oneself in botanical language— a test which I have never known the divisional police surgeon give to a suspected person as an indication of his sobriety. I presume he, the surgeon, would deem it too cruel and unfair. If the accuracy or inaccuracy of articulate pronunciation of botanical language was a test as to we botanical students' stage of inebriation, our tutor would have to mark us all hopelessly drunk, or to employ a vulgarism "blind."

I will say nothing of chemical equations, except that they are the "limit." Yet, I wish I was—to use a chemical term—"saturated with them." Chemistry is, I recognize, of all sciences connected with Scientific Agriculture, most important.

The staple of our library is Agriculture, with its allied sciences, and our collection of these noble works would be hard to match elsewhere. Of course, I do not mean numerically !

Should I be thought lacking in appreciation of them when I avow my inability to understand why chemistry should be regarded as of such surprising and peculiar interest to agriculturists. I say without hesitation, after a short experience, that there is no class of book in the library less frequently consulted by its Students.

Whatever might be the appropriateness of chemistry there can be no manner of doubt as to the claims of agriculture, historical and technical, ancient and modern, to a place on our shelves, and it figures there to a satifying extent. Professional text books, also, as a matter of course, there is no lack of them. They are always ready, as Dr. Johnson said in his celebrated metaphor, to "encumber one with help;" and a much older writer said of them "they are like fishes—one edition of them spawns another." The most voracious could eat and be satisfied, even to repletion. If not they can in an adjoining room, the dining hall.

I am sometimes tempted to wonder whether text books share with bacteria the faculty of autogenises or self-multiplication. (The unmistakably bad, previously referred to, ought to possess the faculty of auto-intoxication or self-destruction)

There seems to be a strange law of nature which seems to inspire him who had been unsuccessful in life's battle to write a text book, lest a similar misfortune should overtake his friends. This is the kindest construction that can be put upon it. (I saw in a recent publication, "He who can does, he who cannot

teaches.") If by chance, occasionally a book beyond the range of professional text books of agriculture and its allied sciences, should be found there, to enlighten the gloom which broods over its shelves—I mean a book less desperately "shoppy," one wonders, like a certain Monarch of old, with the apple in the dumpling, "how the deuce it got there."

J. JOLLY.

SPORTS.

CRICKET.—SEASON 1911.—Our Club had a most successful season last year; out of 8 matches played, 3 were won, 2 lost, and 3 drawn. Considering the fact that during the previous season no matches were won, we may congratulate ourselves on the improvement shown in College Cricket.

The following averages are worthy of notice :—

BATTING.

	Total Runs	Highest Score.	Average.
R. Clegg	140	36	20·0
F. Rayns	136	45	19·4
T. Waddingham ...	73	27*	14·6
E. Russell	92	32	13·1
L. Ashworth ...	72	36	10·3

* Not out.

BOWLING.

	Wickets taken.	Average runs per wkt.
J. C. Pindar	18	3·8
L. Ashworth	6	5·8
G. Woodfield	10	7·5
H. T. Cranfield ...	12	8·7
R. Clegg	10	11·6

Matches have been arranged for every Wednesday and Saturday, commencing April 20th, during the summer term.

It is to be hoped that much enthusiasm will be shown during the coming season at the College for this grand old English sport not only amongst the players, but also among those who are unable always to take a place in the team. It is only by whole-hearted enthusiasm and energy that we can make the coming cricket season at Kingston a successful one, worthy of all the traditions of sport at the College.

H.T.C.

FOOTBALL.—Taking a general review of the season one cannot say that it has been particularly successful. Up to Xmas not a single match was won, though, this is partly explained by our inability to play a full team on any of these occasions. After Xmas, however, we did considerably better, as the following results and list of matches show :—

Played 11; won 4; drawn 2; lost 5.
Goals for 27; against 30.

Rushcliffe	home	...	lost	0—4
Magdala Amateurs	away	...	,,	0—4
West Bridgford Wesleyans ...	home	...	,,	2—5
Nottm. St. Andrew's	away	...	,,	0—3
Rushcliffe	away	...	,,	1—5
Loughborough Grammar School ...	away	...	won	3—2
Nottm. St Andrew's... ...	home	...	drawn	2—2
Kingston	home	...	won	8—0
Kingston	away	...	drawn	3—3
Loughborough Grammar School...	home	...	won	5—1
West Bridgford Wesleyans ...	away	...	won	3—1

Webster and Basford were our two best men, each in his respective style playing exceedingly well; the former being our chief goal scorer. The backs—Arter and Allis—were sound throughout, and Blunt, during the short time he was with us, reproduced that steady, "brainy," game of his, with which, we,—of the previous season—are so familiar. Davie, though playing in an unaccustomed position, played many good games.

F.R.

HOCKEY.—A very disappointing season has been encountered. Once again, we have to put this down to the ever changing of the teams, caused by the migratory six weekers.

The event of the season is the "donning" of new colours, which were made possible by the enthusiastic spirit of the executive and the avidity with which the girls levied the voluntary subscription under the new regime of rules.

The results of the matches are as foliows :—

Matches played 8; won 2; lost 6.
Goals scored 10; against 33.

It is to be hoped that the team will do better in the future, as I am sure that more matches have been lost through bad luck than a lack of desire to excel.

E.N.

PROGRAMME OF SESSION 1911-12.

FIRST TERM.

FRIDAY.

Oct. 13.—Annual General Meeting.

,, 20.—Whist Drive.

,, 27.—"Hat" Night.

Nov. 3.—Address: "Decomposition of Organic Matter." The Hon. President.

,, 10.—Debate on "Emigration."
Affir.: Miss Lewis and Miss Pimlott.
Neg.: Miss Taylor and Miss Jefford.

,, 17.—Concert.

,, 24.—Address: "Tramps Abroad." Mr. Golding.

Dec. 1.—Debate. } Cancelled.
,, 15.—Dance. }

SECOND TERM.

FRIDAY.

Jan. 12.—Cricket Concert.

,, 19.—Address: "Mimicry and Imitation." The President.

,, 26.—Debate: "England—Agriculturally v. Commercially."
Messrs Powell and Steeples.
,, Turnill and Gawne.

Feb. 2.—Whist Drive.

,, 9.—Address: "Palmistry of the Rocks." Dr. Swinnerton.

,, 16.—Concert.

,, 23.—Address: "Cocoa Nuts." Mr. Jemmett Brown.

Mar. 1.—Address: "Holland." Mr. W. Sadler.

,, 8.—Address: "Two Swedish Cities." Dr. Wm. Goodwin.

,, 15.—Address: "Canada." Mr. F. Campbell.

,, 22.—Dance.

NOTICES.

Contributors to the Magazine are requested to send in their M.S.S. written on one side of the paper only, to the Editor before the end of February.

The M.S.S. pages should be numbered; articles are limited to 1500 words and should be accompanied by the name and address of sender, though a *nom-de-plume* may be annexed for publication.

No M.S.S. will be returned.

SUBSCRIBERS.

Adlard, E., Miss .. .. Rose Cottage, Louth.
Allbones, L. E. .. .. High Farm, Washingboro', Lincoln.
Allwood, J., Miss .. .. The Dairy, Masham S.O., Yorks.
Anderson, R. .. .. .. Brandsby, Easingwold, Yorks.
Arter, J. H. .. .. .. Ironville, near Alfreton.
Ashworth, L. .. .. .. Moorgate Park, Retford.
Baddiley, M., Miss .. .. Worksop.
Bagguley, E. M., Miss .. .. Rolleston R.S.O., Notts.
Bath, F. H. .. .. .. New Swanington, near Whitwick.
Barrowcliffe, Mrs. .. .. Zouch Mills, Loughborough.
Beard, W., Miss .. .. Church Warsop, Mansfield.
Bennard, J. H. .. .. Owmby-cum-Searby, Lincoln.
Blackshaw, J. F. .. .. The Cottage, Bromsgrove.
Blunt, M., Miss .. .. Breedon-on-the-Hill, Leicestershire.
Bonsell, Miss .. .. Appleby Magna, Atherstone, Le'stershire.
Bonsell, Miss .. .. Ley's Farm, Eaton, Witton, Ashbourne.
Bowmer, A. E. M., Mrs. .. The Hayes, Barrow-on-Soar.
Bourne, A. S., Miss .. .. Stoney Lane House, Tardebigge, Bromsgrove.
Brown, Miss .. .. Welham Villa, Retford, Notts.
Brown, W. T. .. .. 17, Stockleigh Road, St. Leonards-on-Sea.
Brown, E., Miss .. .. The Limes, Bingham, Notts.
Brown, C. B. .. .. Moorlands, Nuneaton.
Burnett, J. .. .. Wye Farm, Ransby.
Burton, H. H. .. .. Torksey, Lincoln.
Bulkeley, B. W. L. .. .. The Shire Hall, Notts.
Brunyee, K., Mrs. (née Upton) .. Cleatham House, Kirton-in-Lindsey.
Camp, M., Miss .. .. C. C. Dairy School, Whitchurch, Salop.
Carter, T. E., ... Goulceby, Lincoln.
Carlin, Miss .. .. Moorwood Moor, Crich, Matlock.
Challans, Miss .. .. Colston Bassett, Bingham.
Clarke, G. .. .. Grainsby Grange, near Grimsby.
Clegg, R. .. .. Gt. Carlton Grange, Saltfleetby, Louth.
Clipstone, O. .. .. Hawthorn Cottage, Brentingby.
Coe, F. E. .. .. Carlton-on-Trent, Newark.
Compton, A. G. .. .. Newton Burgoland, Ashby-de-la-Zouch.
Connel, M. E., Miss .. .. Danby Wiske, Northallerton.
Cranfield, H. T. .. .. M.A.D.C.. Kingston, Derby.
Crocker, M. G., Miss .. .. 11, College Road, Exeter.
Crosby, R. D.. .. .. Flotergrate. Grimsby.

Dann, Miss	South View, Shrewton, Wilts.
Dawson, M. Miss	Teldersley, Derby.
Deacon, E.	Snarestone, Atherstone.
Derry, C.	Old Lenton, Notts.
Done, F.	Ludford, Market Rasen.
Dobbin, C.	C. C. Poultry Farm, Hutton, Preston.
Draper, Miss	The Hayes, Barrow-on-Soar.
Eaton, L., Miss	Hatton, Burton-on-Trent.
Eggleston, A. W.	Foxhill Farm, Barrow-on-Soar.
Elmitt, M.	Violet Cottage, Fotherby, Louth.
Else, G., Miss	Hankin Farm, Whatstandwell.
Emmerson, M.	Manor Farm, Brattelby, Lincoln.
Evens, J.	Burton, Lincoln.
Fairweather, I. K., Miss	Sunnyside, Worksop.
Farrow, E., Miss	Ingham, Lincoln.
Felstead, A., Miss	Abb Kettleby, Melton Mowbray.
Fishwich, V. E.	69, Goldington Avenue, Bedford.
Flintoff, N., Miss	Carburton Manor, Ollerton, Notts.
Foryan, A.	2, Bell Street, Wigston.
Forman, G., Miss	Chellaston, Derby.
Fountain, Miss	School Farm, Hollington, Derby.
Fox, G. O.	M.A.D.C., Kingston, Derby.
Francis, E. S., Miss	Claremont Farm, Esher.
Freeman, G., Miss	The Mill, Ravenstone, Ashby-de-la-Zouch.
Fry, A.	Johannesburg, Transvaal.
Fry, E , Mrs.	Johannesburg, Transvaal.
Gamble, F. D.	Braunstone Lodge, Enderby.
Gadsby, N.	Redhill, Notts.
Glover, E.	Snareston, Atherstone, Ashby-de-la-Zouch.
Godsmark, R.	Chapel Farm, Pelham, Canterbury.
Golding, N.	Dairy Department, Guelph, Ontario.
Golding, J.	M.A.D.C., Kingston, Derby.
Goodwin, Wm. Dr.	M.A.D.C., Kingston, Derby.
Goodall, G. P.	Lucknow Avenue, Nottingham.
Grinevitch, M. Lde., Miss	Moscow, Russia.
Hall, Miss	Clipstone, Plumtree, Notts.
Hakes, Miss	Cuckney, Mansfield.
Hayes, G.	Beeston, Notts.
Haynes, G. N.	Finden, near Derby.
Haynes, H.	Hilton Common, Derby.
Haywood, M., Miss	Plumtree, Notts.
Haywood, L., Miss	Nailstone Grange, Nuneaton.
Hawkins, Miss	M.A.D.C., Kingston, Derby.

Headridge, Miss	Neadwood, Christow, Exeter.
Heath. G. J., Miss	Orton-on-the-Hill, Atherstone.
Henshaw, T.	Tythby Grange, Bingham, Notts.
Hogan, J.	19, Gedling Grove, Nottingham.
Holdsworth, J. M., Miss	Sweet Hills Farm, Kirton Lindsey.
Hollway, M. G., Miss	Whitchurch Lane, Edgware, Middlesex.
Holman, M. E., Miss	Knossington, Oakham.
Hubbard, M., Miss	Osgodby, Grantham.
Hurt, E. F.	Ironbrook, Darley Dale, Matlock.
Hutchinson, Dr.	Rothamsted, Harpenden.
Hyland, C.	Brampton, Torksey, Lincoln.
Iremonger, Miss	The Glebe Farm, Beningworth, Lincoln.
James, A. M.	Alverstone Road, Mapperley Park, Nottm.
James, F.	7, Rectory Road, West Bridgford.
James, M., Mrs. (née Bailey)	Penllwyn House, Narbeth, South Wales.
Jefford, Miss	Town Farm, Bretby, Burton-on-Trent.
Jenkins, Miss	Buxton.
Johnson, F. M., Miss	White House, Wragby, Lincs.
Johnston, M. R.	Withcote, Oakham.
Jolly, J. W.	M.A.D.C., Kingston, Derby.
Knight, S.	Buckminster, Grantham.
Kirkham, A. M., Miss	Stanley Moor Head, Bagnall,
Levie, A.	M.A.D.C., Kingston, Derby.
Lindley, W.	Normanton, Southwell.
Little, M., Miss	Horninghold, Uppingham.
Maclaren, P.	M.A.D.C, Kingston, Derby.
Mackley, M. H.	Glebe Farm, Goadby Marwood.
Manning, P., Miss	Melksham.
Matthews, J.	M.A.D.C., Kingston, Derby.
Matthews, R. H., Miss	Ivy Dene, Highholme Road, Louth.
Mattinson, J. H.	Brackly Fields, Northants.
May, J. S.	Pilsby School, Pilsby.
Marshall, S. B.	Holme Road, Radcliffe-on-Trent.
Mason, M., c/o Miss Wood	Lockhampton Hill, Cheltenham.
Mellors, Miss	Alverton, Orston, Notts.
Mercier, Miss	M.A.D.C., Kingston, Derby.
Milburn, T., Dr.	17, West Cliff, Preston.
Miller, E., Miss	West Shield House, Morpeth.
Moulds, G. H.	Bilby, Retford, Notts.
Murfin, Miss	Sandom's Place Farm, Ripley, Derby.
Newbigen, H. F., Miss	13, George Square, Edinburgh.
Noble, E., Miss	M.A.D.C., Kingston, Derby.

Oram, G., Miss	Melton Mowbray.
Parkin, F.	16, Victoria Street, Nottingham.
Parr, L. H.	Ashley, Market Drayton.
Pearson, H. G., Miss	Lookout, Alnwick, Northumberland.
Penney, F., Miss	39, Station Street, Wigston.
Perkins, M., Miss	Barkby, Leicester.
Perkins, R.	Barkby, Leicester.
Peters, Wm.	Winnington Cheese Factory, Pipegate, Market Drayton.
Peters, H. W. B.	Rue Ernest Daniel, 4, Plage Seince In fe rier, France.
Pimlott, Miss	The Sycamores, Over Winsford, Cheshire.
Pindar, J. C.	West Parade, Lincoln.
Porter, B.	Tattershall Bridge, Lincoln.
Powell, P. J.	Normanton, Derby.
Pyke, L. H.	Great Worsham, Bexhill, Sussex.
Radford, A.	New House, Rugeley.
Randall, A. W., Miss	Scalford Lodge, Melton Mowbray.
Rayns, F.	Six Hills, Leicester.
Rhodes, G. P., Miss	Donnybrook, Brookside.
Riggott, B.	Dunstan Farm, Newbold, Chesterfield.
Rolling, E. A., Miss	Primrose Hill, Rufford, Notts.
Rothera, E., Miss	Kegworth, Derby.
Rowland, M., Miss	East Barkwith, Lincoln.
Russell, E.	M.A.D.C., Kingston, Derby.
Sadler, W.	M.A.D.C., Kingston, Derby.
Saker, D., Miss	Dairy School, Chelmsford.
Salt, S.	Field House, Breaston.
Sharpe, E., Miss	The Grange, Holton-le-Clay, Grimsby.
Sharpe, W.	,, ,, ,,
Shackleton, E J.	Hill Crest, Mill Hill Road, Derby.
Shemwell, J., Miss	The Farm, Heath, Chesterfield.
Sims, Miss	Bradley Nook, Holland Ward, Derby.
Simpson, A., Miss	Beech Cliff Farm, Newcastle, Staffs.
Skelton, Miss	Lodge Hill, Ambergate.
Slinger, H. M., Miss	Oxton Fallows, Southwell.
Slinger, S. T.	,, ,, ,,
Slinger, G. F.	Natal.
Smith, A.	Long Clawson, Melton Mowbray.
Smith, J.	24, Arboretum Street, Nottingham.
Stafford, C. A. S.	Hognaston, Ashbourne.
Stafford, G. J. W.	Old Basing, Hampshire.
Stamp, Miss	Hayton, Retford, Notts.
Stevenson, Miss	Rectory, Kegworth, Derby.

Stimson, J.	Market Street, Ashby-de-la-Zouch.
Stokes, E. E.	M.A.D.C., Kingston, Derby.
Stubbs, Miss	County Education Offices, Weston-Super-Mare.
Swaby, A. H.	106, High Street, Scunthorpe.
Taylor, M. C., Miss	Humberstone, Grimsby.
Taylor, M. G. D., Miss	,, ,,
Taylor, F. M., Miss	Buckminster Park Dairy, Grantham.
Thomas, D. M., Miss	Woodhouse Villa, Sutton-in-Ashfield.
Thornley, A., Rev.	Hughenden, Mapperley, Nottingham.
Todd, A.	M.A D.C., Kingston, Derby.
Toussaint, E. M., Mrs.	Frisby-on-the-Wreake, Leicester.
Trevor, S.	Barkestone-le-Vale, Nottingham.
Trussell, H. J.	Prestop Park, Ashby-de-la-Zouch.
Tulloch, I., Mrs (née Strachan) ..	13, Bellevue Crescent, Edinburgh.
Vallance, W. D.	Medway Dairy, Gillingham, Kent.
Waddingham, T.	Northlands, Winterton, Doncaster.
Wagstaffe, H.	Colston Bassett, Bingham, Notts.
Wakerley, F.	M.A.D.C., Kingston, Derby.
Walters, G., Miss	Mona Terrace, Cullercoats.
Wallace, J. O.	Heighington, Durham.
Weatherall, Miss	Old Hall, East Bridgford, Notts.
Wild, W., Miss	Tollerton, Notts.
Wild, M , Miss	Tollerton, Notts.
Wilkinson, F.	Home Farm, Kingston-on-Soar, Derby.
Willett, Miss	Snibstone House, Ashby-de-la-Zouch.
Wilmot, M., Miss	Newton-on-Trent, Newark.
Winters, S. E.	The Sundridge, Sutton Coldfield.
Wood, T , Miss	Horsley, Eccleshall, Staffs.
Woodward, F., Miss	Wilsthorpe, Breaston.
Woolley, J. H.	M.A.D.C., Kingston, Derby.
Wyllie, Miss	25, West Parade, Lincoln.

NOTE.—Subscribers are requested to notify the Editor of any change of address.

Co-operation is the Secret of Success."—Right Hon. R. W. Hanbury, M.P.

THE MIDLAND FARMERS' CO-OPERATIVE ASSOCIATION, Ltd.,

LINCOLN STREET, NOTTINGHAM.

REGISTER No. 4448 NOTTS. R. NOV. 7th, 1906.

OBJECT. 'To carry on the industry or occupation of Wholesale and "Retail Dealers in Agricultural Requirements and Produce, in Dairy Produce, "Eggs and Poultry, etc. The Society may obtain and disseminate among its "members useful information in order to foster, develop, and promote the "Agricultural Organization movement in Great Britain."

CAPITAL. The Capital of the Association is raised by shares of the nominal value of five shillings, and one share has to be taken for every ten acres in the occupation of a person desirous of becoming a member. Payment for shares is as follows, viz., one-fourth (1/3 per share) upon application, and the balance as the Committee may decide. A member occupying 100 *acres* would, therefore, have to pay 12s. 6d. upon application; he is responsible for a further sum of £1 17s. 6d. in such amounts as may be called up from time to time, upon payment of which all liability on his part ceases, the liability of the Association being limited. The first charge on the nett profits is payment of Interest at the rate of 5 per cent. per annum upon the amount of the paid up capital.

[*N.B.—No application for shares can be entertained unless at least* FOUR *shares be applied for.*]

GENERAL COMMITTEE

FROM WHICH

THE TRADING AND FINANCE COMMITTEES ARE SELECTED:

THE PRESIDENT - COLONEL SIR LANCELOT ROLLESTON, K.C.B., D.S.O. *(Chairman.)*

MR. R. P. ALLSEBROOK, Prestwold.
,, P. F. ASTILL, Cossington.
,, A. A. AVIS, Stoke Bardolph.
,, W. H. BRADWELL, Nottingham.
,, G. A. BELLWOOD, Bishop Norton.
,, JOHN BULL, Long Whatton.
,, C. BURNETT, Packington.
DR. WM. GOODWIN, Kingston.
MR. H. HEATH, Bestwood.
,, R. HENSHAW, Bingham.
,, J. H. HOUGHTON, Asfordby.
MR. OSWALD KIRK, East Leake.
,, R. G. NORMAN, Rufford.
,, G. E. READ, Low Toynton, Horncastle.
,, R. SHELTON, Ruddington.
,, WALTER SMEETON, Bunny.
,, B. A. SMITH, Nottingham.
,, T. TURNER, Harpswell.
,, T. TURNER, Kingston.
,, F. E. F. WRIGHT, Ashbourne.

AUDITORS:

MESSRS. THOMAS LEMAN AND SONS, St. Peter's Church Walk, Nottingham.

HON. TREASURER:

MR. W. H. BRADWELL.

MANAGER AND SECRETARY:

CHARLES G. BRYANT.

BANKERS:

UNION OF LONDON AND SMITHS BANK, LTD.

REGISTERED OFFICES:

LINCOLN STREET, NOTTINGHAM.