

The M. A. C. Record.

VOLUME I.

AGRICULTURAL COLLEGE, MICHIGAN, TUESDAY, FEBRUARY 4, 1896.

NUMBER 4.

ECHOES FROM INSTITUTES.

Petersburg.

One of the new and interesting points brought out at this institute was the success attained in the raising of crimson clover in some parts of Monroe county.

This plant has not been a success in other parts of the state, but here near Lake Erie on rich, loamy soil it withstood the drouth of last season remarkably well and yielded abundantly.

One field of it south of Parma was also reported as yielding a large crop of most excellent hay.

The weather was anything but pleasant, yet old Monroe county turned out a large, intelligent, and enthusiastic crowd.

The college was represented by Robert Gibbons of the *Michigan Farmer*; J. I. Breck, Deputy Dairy and Food Commissioner; A. W. Hayden, the horseman; and Professors Edwards, Hedrick, Mumford and Smith.

A paper by the County Clerk of Monroe county, Hon. H. W. Campbell of Monroe, demonstrated the advantages of farm life in that favored county, near both Detroit and Toledo. The discussion developed the fact that but about 26% of the farms in the county were under mortgage and that these claims were largely owned by other farmers and accrued for the purchase price of the farms themselves.

The discussion of the paper on "How to meet the drouth" brought out several fruit raisers from near Lake Erie.

The area in peach orchards in this part of Monroe county is rapidly increasing from year to year. The trees are healthy, the crops abundant and regular, and the markets unexcelled. Monroe county is a friendly rival of the west shore but caters to a different market. The Crawfords both early and late are the leading varieties though of course the Elberta is being largely set out this year.

The dairy industry is one of the leading activities of the county and received considerable attention at the institute.

In seeking for a sample of really *bad* butter to be used for illustration at the institute it was found impossible to discover a sample of really poor butter in Petersburg. Uncolored butter was plentiful but *bad* butter did not exist.

Farmers organizations have existed in Monroe county for thirty years. They have borne good fruit. Nowhere else in the State have the questions presented been more intelligently discussed.

An acquaintance with public speaking was manifest.

Mount Clemens.

The weather was steadily unfavorable, but it is not often that we are permitted to address an audience so broad minded, unsoured, intelligently receptive, as that at Mt. Clemens. The attendance was not large, but the interest displayed was good and the work done will bear fruit. At the afternoon session of Jan. 25 the noticeable feature was the absence of ladies, and the large preponderance of solid, middle aged farmers. It is to be regretted that the number of papers from local talent at this institute was small. As a rule, the largest amount of enthusiasm at institutes develops over local papers. In the nature of the case, the local paper is better able to deal with individual conditions and surroundings; it handles local issues with direct reference to local needs and circumstances, and is successful in engendering discussion based on known data. Our effort should be to encourage and enlarge this feature in all institutes and to give it prominence and emphasis. Mr. K. L. Butterfield's address on "Plows and Politics" was well received. He strongly presented the disorganized condition and distrustful state of mind prevailing in most farming communities and urged union and concentration on three measures: (1) More stringent pure food laws; (2) Equalization of taxes; (3) The Redfern liquor commission bill. This bill, introduced at the last legislative session, has not received the attention it deserved, and its purpose has been little understood. Its purport was to create a commission to ascertain and faithfully report on (1) the dimensions of the liquor traffic; (2) its social effects, with especial reference to insanity and crime; (3) methods of control in this and other lands, and their success. It would seem that such an inquiry would be eminently desirable. The clash of mere opinion based on vague and unsubstantiated estimates is the wild confusion of the waves on a stormy sea. It can result in nothing constructive.

But when we can appeal to known and indisputable facts, then the agitation unifies and crystallizes public opinion, and results in organized action.

At the evening session the graphophone was introduced, and the audience was delighted with a variety of selections of music rendered by the best talent of the country. The encores were frequent and enthusiastic. The instrument was greatly encouraged and flattered and its polished oak case blushed to a mahogany red.

"The young man has forcibly and accurately expressed my thoughts. He is all right."—*Mr. Thos. Dawson at Mt. Clemens after Kenyon Butterfield's address.*

Pontiac.

The noticeable features about the institute were the steady growth in interest and attendance. It commenced rather tamely on Monday morning, but by Tuesday afternoon the meeting had developed into the most crowded and intensely interesting of all those on this circuit. The weather during both days was ideal. Here we met some of the college boys, George Starr, '96, F. W. Herbert, '96, m., and J. Y. Clark, '85. The last took the audience by storm with his paper on "Prospects for the Young Farmer," which we publish in another column. It is an eminently thoughtful, suggestive and timely paper. We have rarely seen a paper awake such enthusiastic applause, and the fact affords us especial pleasure as the achievement of one of our college boys among farmers and on our especial line of work.

Ex Gov. Luce (at Pontiac): "I raise small fruit only on a very, very small scale" [remark from the audience] "with a spoon, I suppose."

Ex-Gov. Luce (at Pontiac): "Only the best of us lecturers get three dollars a day; these college fellows don't get anything."

In the discussion on "Beautifying Farm Homes," special reference was made to the beauty and refined taste found at the home of our honored board member, W. E. Boyden. Especial attention was called to the tree grouping around his home.

"My daughter, after repeated appeals to me, finally took the matter in her own hands and surprised me one day on my return home with the sight of my front yard fence strewn over the lawn. The front lawn should not be disfigured with a fence."—*Hon. Peter Voorhees, at Pontiac.*

"Use for shade fruit trees rather than forest trees."—*Mrs. Divine, at Pontiac.*

"Keep the shade trees from in front of the house; group them at the sides and have a cool, green lawn in front."—*Geo. Starr, at Pontiac.*

The afternoon session of the second day lasted over four hours with house crowded and interest unabated till the dismissal. We have rarely seen an audience so inspiring and with such staying powers. The original poem, with which the meeting concluded, evinced remarkable responsiveness, tenderness, and truthfulness of sentiment on the part of the writer, and did honor to the Oakland County Institute. It celebrated in natural, simple verse the privations, the pleasures, and the triumphs of the pioneer men and women. We hope to give the poem entire in an early issue of the *RECORD*.

STATE MILLERS' ASSOCIATION.

The State Millers' Association held its annual meeting in Lansing at Hotel Downey, on January 14, a large delegation being in attendance and the proceedings very interesting. Naturally a large part of the business related to matters of interest to the millers only, but there were some points of interest to farmers as well as millers. The question of foreign markets for our winter wheat flour attracted much attention, and two valuable papers were read on the subject, "Plain Duties of the Michigan Delegation in Congress," by W. B. Kirby (with '84), manager Hart Milling Co., N. Lansing; and "Reciprocity with the West Indies, South America and European Countries," by C. B. Chatfield, of Bay City.

Another subject which commanded the attention of the millers and which is of equal interest to farmers was the introduction of new and better varieties of wheat for cultivation in our state. Dr. Kedzie read a paper on "Experiments with Foreign Wheats," exhibiting ten kinds of Russian wheats which he had obtained from the department of Agriculture, and two kinds which Prof. Smith had imported from Germany. He also exhibited Buda-Pesth wheat of three successive years' growth, and Dawson's Golden Chaff of two years' growth, and a new wheat found last year in Kent Co.

All of these wheats are now being tested on the college farm to determine their hardness, productiveness and the persistence of their good qualities, and later on to find their milling and bread making properties. The chemical analysis of all the older varieties of wheat grown in this state was shown on charts; also analysis of all the new varieties, and then comparison made of the gluten in all these kinds by graphic illustration which enabled the millers to see at a glance the relative value of all these varieties of wheat.

The interest centered around the Buda-Pesth wheat, because Mr. C. G. A. Voigt had secured twenty bushels of this wheat for grinding in a roller process mill, and thus exhibited its milling quality. He had sent flour to a number of millers who brought bread made from this flour, and the comparison of these loaves and tasting of the bread secured the practical "proof in the eating." The millers were delighted with Buda-Pesth wheat, and the praise of the bread was in every mouth.

Attention was also called to the desirability of securing some process of milling to find out the flour producing and bread making quality of a new wheat, without having to wait till twenty bushels can be spared for the roller process method of grinding, as seen in this experiment with Buda-Pesth wheat. The Australian method of securing a baby roller mill in which a pound of wheat could be as effectually milled as in the large mills, and the milling quality determined early in the history of a new wheat, and varieties of small promise promptly thrown aside, while those of excellent promise can be carefully cultivated and the years of preliminary experimenting shortened, struck a responsive chord in every miller's breast.

Attention was also directed to the method of improving wheat by cross breeding, which has been so successfully carried on by Mr. William Farrer of New South Wales. Ten kinds of cross bred wheats have been received from Mr. Farrer, sown on the College farm by Prof. Smith and placed under the care of Mr. Crozier. The results of this cross breeding will be watched with interest. It may end in disappointment, but we look forward with hope.

The spirit of the papers and discussions disclosed a disposition on the part of the millers to cordially cooperate with the farmers in securing the best kinds of wheat for our state; best for the farmers, most hardy and productive; best for the millers, in milling and blending quality; and best for the consumers in affording a light, palatable and nutritious loaf.

It was voted to print in pamphlet form 5,000 copies of the paper on experiments with foreign wheats, with Mr. Voigt's report on Buda-Pesth wheat, for distribution among farmers.

An account of the experiments in wheat culture at the Experiment Station will appear in the next issue of the *RECORD*.

MILITARY DEPARTMENT NOTES.

It is probable that a course in physical culture will be offered to students during the spring term. While the work cannot now be definitely outlined an endeavor will be made to make it suitable to particular needs of our students.

Probably by the opening of the new term the old wrought iron field pieces will be replaced by modern guns such as are used in the regular service. These pieces are of steel throughout, mounted on steel carriages and are breech loaders. They are fully up-to-date guns and have no superior in any army in the world.

The equipment in the armory will be further increased by the addition of six non-commissioned officers' swords and belts.

The great need of the department is a firing ground for rifle practice, where a range of at least 600 yards is obtainable. With such a range our facilities for the instruction of the infantry soldier will compare favorably with those of any other agricultural college.

AN INTERESTING OPERATION.

Dr. Carrow performed a delicate and interesting operation Saturday which may be new to medical students. The case was that of a young man afflicted with a disease which caused the complete loss of sight in one eye. In order to prevent the contagion spreading to the other eye a small watch crystal was inserted beneath the lid of the unaffected eye. It is expected that the flesh will knit so closely around the glass that no impurities will be able to enter. The patient is able to see very satisfactorily through his novel eye glass.—*U. of M. Daily.*

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MICHIGAN AGRICULTURAL COLLEGE

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PRESS OF ROBERT SMITH & CO., LANSING, MICH.

We are indebted to our Russian student, Vadim Sobennikoff, for an excellent article on Russian peasant life. When the American farmer compares his own life with that of the Russian peasant it seems as though he must congratulate himself that his condition is no worse.

We have received many compliments from our exchanges for which we are duly grateful. We are sorry we cannot acknowledge each one of them personally, but our exchange list is already so large that to do so would take up most of our space, and we are sure our contemporaries would rather have news.

We consider ourselves fortunate this week in being able to present Mr. Clark's excellent paper on "Prospects for the Young Farmer." Mr. Clark strikes a clear line and then hews close. American farmers have for a long time recognized the fact that organizations were working against them. Now they are beginning to realize that they must "meet organization with organization," not for the purpose of controlling production, but for the purpose of controlling markets. This paper should be read, learned, absorbed by every American farmer. We feel assured that those who do read it will treasure it, and more especially will this be true of our Alumni, for it comes from one of their number.

OUR EXCHANGES.

When students return they will be pleased to find on our exchange table in the reading room their local newspapers with news fresh from home. Our exchange list already includes over sixty publications including the following:

Atlanta Tribune, Ann Arbor Courier.
Bancroft Commercial, Bellevue Gazette, Bronson Journal.
Cheboygan Tribune, Chelsea Standard, Charlotte Leader, College World, The (Adrian), Coopersville Observer, Clio Star.
Dundee Reporter, Dowagiac Republican, Dexter Leader.
Eaton Rapids Journal.
Fort Gratiot Sun (Port Huron), Fremont News, Grand Rapids Democrat, Houghton Co. Progress (Hancock), Hudsonville Republican, Hermean Herald (Ironwood), Hillsdale College Herald, Hudson Republican.
Imlay City Record, Isabella Co. Republican (Shepherd), Ingham County News.
Jonesville Independent.
Kalkaskian, The.
Lake Ann Wave, L'Anse Sentinel, Litchfield Record, Local Republican (Leslie).
Milan Leader, Michigan School Moderator, Marlette Leader, Middleville Sun, Mackinaw Witness, Morley Tribune, Memphis Bee, Missaukee Republican (Lake City).
North Lansing Record, North Branch Gazette.
Oakley News, Olivet Optic.
People's Alliance (Hartford), Petoskey Record, Pinckney Dispatch.
Richmond Review.
St. Ignace Enterprise, St. Ignace News, Semi-Weekly Democrat (Ludington), St. Charles News, Scottville Enterprise, Sanilac Recorder (Deckerville), Soo Democrat.
Tekonsha News, Traverse Bay Eagle (Traverse City).
U. of M. Daily, Unionville Crescent.
Vidette, The (Homer).
Warren Watchman, Weekly American (Owosso), Weekly Courier (Coldwater), Weekly Review (McBride), Workman (Grand Rapids).
Yale Expositor.

AT THE COLLEGE.

G. N. Eastman, with '96, m., is visiting at M. A. C.
Mrs. Gunson visited at Plymouth several days of last week.
New lockers for students' unfinished work are being made for the iron shop.
Hon. Philo D. Parsons, who died in Detroit recently, was a member of the Board of Agriculture in 1861-63. In the course of his long and busy career he has always

been a devoted friend of education. He made generous donations to Olivet College, and their largest dormitory is named Parsons Hall in honor of him.

Mrs. Westcott and "that boy" who have been spending the winter in Toledo, O., returned to College last week.

Mrs. Edwards and her sons Norman and Bland, who have been spending the winter in Virginia, returned to M. A. C. last Friday.

A special meeting of the Board was held last Thursday evening and Friday forenoon, but only routine business was transacted.

Kalamazoo College has applied for admission to the Michigan Inter-Collegiate Athletic Association, which now includes Hillsdale, Albion, Olivet, and Michigan Agricultural Colleges and the State Normal.

NEWS FROM GRADUATES AND FORMER STUDENTS.

Students in Mechanical Course designated by "m." and specials by "sp." after name.

Clarence E. Smith, '84, is police judge at Waukegon, Ill.

Dewice H. Phillips, with '76, is a farmer at Medina, Ohio.

Dan Smith, with '94, spent Sunday, Jan. 26, at M. A. C.

Fred Hadsell, with '69, is a farming at Dailey, Cass county.

C. M. Hallock, '98, m., does not expect to return in the spring.

A. W. Chase, with '94, is traveling in Colorado for D. M. Ferry & Co.

Niles E. Dresser, with '92, is assistant postmaster at Litchfield, Mich.

John Watson, with '93, is with the Fletcher Hardware Co., Detroit.

W. J. Cummings, '96, m., is in A. W. Buckley's architect office in Chicago.

B. F. Halstead, with '97, is attending the Indiana University at Bloomington.

Milton St. John, '83, is traveling salesman for D. M. Ferry & Co., from Yates, N. Y.

Walter Flynne, '99, m., is working in Michigan Central car works at St. Thomas, Ont.

Hale Hugh Miller, with '75, is pastor of the M. E. church at Vandalia, Cass, Co., Mich.

W. E. Palmer, '92, has left the Aermoter Co., and is now with an electrical concern in Chicago.

L. A. Clinton, '89, assistant agriculturist at Cornell, writes that his work is pleasant and plentiful.

F. B. Phillips applies for his old room and will finish with '96. He says McKinnon will be here too.

We are glad to welcome among our exchanges the Litchfield Record, published by A. M. Meyers, with '93, m.

Wm. Anderson, with '96, m., left for Ishpeming last Monday to accept a position with the Lake Superior Iron Co.

Tom S. Major, '92, Centreville, is feeding 400 sheep for the market this month. He sold 200 for the Christmas market.

We have on our exchange list the *People's Banner* of Grand Ledge, which is published by Clement J. Strang, '78.

O. C. Wheeler, '87, finding his duties as manager of a creamery at Coopersville too arduous, has returned to his farm near Lansing.

F. P. Clark, '93, is one of the law firm of Cropsey & Clark, Vicksburg, Mich. He is talking of raising poultry as a diversion.

W. F. Pack of Centreville, a student at M. A. C. early in the eighties, was a guest of Mr. Pashby, Instructor in Mathematics, last week.

F. M. VanAuken, '97, m., returned to M. A. C. last Wednesday. He has been working in Allegan county for the West Michigan Telephone Co.

Prof. U. P. Hedrick, '93, writes from Oregon: "We who have just come to Corvallis from M. A. C. find it a pleasant place to live. The people, climate, and the work are all congenial. The college here is prosperous and well appreciated throughout the state. We are

almost over run with students—389, the greatest number in proportion to the inhabitants of the State of any Agricultural College in the Union."

L. Gilbert Nichols, with '95, and Jas. W. Gordon, with '75, have formed a partnership and are in the real estate and insurance business in Battle Creek.

Fred E. Smith, with '78, who took a special course in surveying, is County Surveyor of Cass Co. and has been for the past few years. Address Penn, Mich.

Last Monday Thos. L. Bradford, with '92, m., made a flying trip home from Oswego, N. Y., where he is assistant superintendent of the Ames Iron Works.

H. F. Hall, '90, (Barney) is now superintendent of shops and rolling stock for the Philadelphia Div. of the Pennsylvania Ry., with headquarters at Philadelphia.

John Taylor Bregger and the RECORD will celebrate the same birthday anniversary—Jan. 14, 1896. John Taylor is the oldest son of Louis A. Bregger, '88, and he began life with ten pounds.

Lory F. Newell, with '94, m., surprised his brother by walking into the shop one morning last week. He was on his way from Cincinnati to Reed City where he takes a position in a machine shop.

Victor H. Lowe, '91, a father—girl—born Dec. 23, 1895. Congratulations should be sent to Geneva, N. Y. Mr. and Mrs. Lowe were in Lansing the 25th ult., on their way to Jackson and Lapeer to visit parents.

Thomas Dearden, with '89, m., served his apprenticeship at the Brooks Locomotive Works, Dunkirk, N. Y., and is now foreman of the erecting gang in the Grand Trunk Railway shops at Battle Creek, Mich.

Chas. A. Sturges, '75, after graduation taught for some time at Warsaw, Ind., was afterwards elected clerk of St. Joseph Co. for three terms, and is now practicing law at Sturgis, Mich. He is unmarried.

Of the eleven State certificates granted as a result of the recent examination in Lansing, four were granted to M. A. C. students and alumni, viz.: L. H. Baker, '93, H. W. Lawson and H. E. Ward, '95, and R. E. Doolittle, '96.

C. P. Close, '95, takes the place of Wendell Paddock, '93, at the Geneva Experiment Station during Mr. Paddock's absence at Cornell University where the latter gentleman will take a three month's course in mycology.

A. L. Pond, with '97, m., has a position in East Orange, N. J., with the Sprague Electric Elevator Co. He is wiring machines and as soon as he is proficient at the business will be sent out by the firm to do wiring wherever their machines are sent. He is very much pleased with his position.

A letter from R. S. Welsh, '94, whose address is box 160, Sault Ste. Marie, contains the following: "I hope that the RECORD will meet with the success of which it is deserving and that it will not be a rival of the 'Spec.' At present I am teaching the mathematics in the Soo high school. The results of the institute held at this place are already apparent, as the farmers who attended have organized themselves into a cooperative association. The plans for the commencement of a cooperative supply store are well nigh perfected. They will direct their attention to other lines later on."

W. S. Delano, '81, of the Delano Seed Co., Lee Park, Neb., writes that he is pleased to see the RECORD. Mr. Delano is serving his third term as delegate from Nebraska to the Farmers' National Congress. He was delegate from Nebraska to the Pan-American Agricultural Congress which met at Atlanta last October and presented a paper on "Irrigation." He was also one of the commissioners from his state to the Atlanta exposition. This week he presents a paper on "Seed adulteration—its Remedy" before the State Farmers' Institute.

Prof. Charles E. Bessey, '69, professor of botany in the University of Nebraska, is well known in the scientific world through his "Essentials of Botany." He is now reading the proofs of a thorough revision of this work, which is to appear next summer. He has recently completed the revision of the botanical articles for the new edition of Johnson's Cyclopaedia, of which Dr. Asa Gray was formerly botanical editor. In July last at Denver he was elected president of the Department of Science of the National Educational Association, also President of the Botanical Society of America at its meeting in Springfield, Mass. Since June he has held the position of Dean of the Industrial College of the University of Nebraska to which position he was elected in place of Prof. C. L. Ingersoll, '74, who resigned on account of failing health.

That the ties of kinship are but little stronger than those of college friendship is attested by the following from George Richards, 403 Security building, Chicago, who thirty years ago spent two years at M. A. C.: "I had the pleasure of attending your College during 1865-66. Immediately after leaving I went south and lost track of all my old schoolmates. I am now located here and would very much like, if not too much trouble, for you to send me a catalogue of that year and mark those you think are residing here. S. M. Tracy and F. Story Sleeper were my roommates."

Mr. Richards—Catalogues of 1865-66 are not now available. Your roommates both graduated. F. Story Sleeper followed farming at Galesburg, Mich., until his death, which occurred March 25, 1884. S. M. Tracy is alive and filling with honor the position of Director of Experiment Station at the Mississippi Agricultural College. Geo. F. Beasley and Frank S. Burton are both attorneys, the former at 403-5 Hammond Bldg., Detroit, the latter at 30 Elizabeth st., west, Detroit. Frank P. Davis is engineer of sewers, Washington, D. C., and resides 46 I st., N. W. Alfred G. Gulley is Horticulturalist of Experiment Station, Storrs, Conn. Dwight A. Henderson resides at Kalamazoo, Mich., and is traveling salesman for Farrand, Williams & Clark of Detroit, Mich. William D. Place is a farmer, Ionia, Mich. John Swift is landscape gardener, farmer and surveyor, Harbor Springs, Mich., and Warren A. Wells is a teacher in Chicago (Chicago Lawn).

PROSPECTS FOR THE YOUNG FARMER.

Read at the Pontiac Farmers' Institute, Jan. 29, 1896, by James Y. Clark, '85.

When I received a program for this institute, the first thing I noticed was that the horse, sheep, and young farmer were all put in one class and their discussion strictly limited to one hour. And I naturally came to the conclusion that the young farmer was not of so very much importance after all. And when I discovered that strawberries and raspberries were allowed double the length of time, I was completely taken back, and thought he was scarcely worth mentioning at all. I finally concluded that he, like most other farm products, must be in a state of great overproduction, and therefore fallen in value.

But being requested to portray, as nearly as possible, his condition as future years will find it, we will be compelled to sort him out from among the other animals with which he is associated, and to deprive him for a short time of their company—after which he may retire, perhaps never to be heard of again.

The farmer of the future will tread, to a large extent, in the paths worn deep by his ancestors, with the same elements of earth to wrestle with, the same laws of nature to guide him, and the same atmospheric conditions to bless or blight his labors.

He may harness to his plow the lightning bolt of Franklin, and transport his crops in mighty ships of air, but these little innovations will not be allowed to disturb the calm routine of his life, which will proceed much as in the days gone by.

But the web of the future is so inseparably interwoven with that of the present, the one the result of, and arising from the other, that no adequate forecast of his future can be made until we have ascertained the exact condition and tendencies of his present environments.

Let us then consider him first as he now is.

He is a creation of past circumstances and the development of 300 years of colonial and national life. He is the heir and embodiment of the richest legacy that history can bestow—liberty of thought, liberty of speech, liberty of action. The blessings of a common school education are guaranteed to him, and colleges and universities stand with open arms to receive him. Scientific researches of the highest authorities are furnished free to his hand, to assist him in his chosen occupation. His are the advantages of rapid transit, of high class cheap literature, and the near prospect of free distribution of rural mail.

And these powerful agencies, extending their influence into the future, will still continue to expand him mentally, morally, and socially. And the typical American farmer of the future, as in the present, will still continue to be, in all the aspects of his home, his social, and his national life, a person that cannot be paralleled among tillers of the soil of any other country on the globe; a man among men, with trained powers of mind and body, keenly alive to public and private affairs, and a student of markets, conditions, and events.

But when we come to his financial prospects, both in the present and in the future, we must pause—for in this respect he is in such straits that it would take the united efforts and all the complicated machinery of the star gazers and prophets of old to successfully evolve

him. This country is making financial history, and making it fast.

On all sides are great national questions and business conditions severely affecting agricultural interests,—conditions that demand the grave consideration and the organized action of a class of population who, thus far, have been unable either to organize or to stop producing.

It will be wise for the young farmer, who is seeking a solution of problems that will affect his interests for all time to come, to tabulate the financial conditions of agriculture as they exist at the present time,—and if he does so, he will note in the inventory the following facts:

That this is an era of low prices and high taxes.

That nearly all the staple products of the farm, such as wheat, oats, barley, corn, and rye, are produced largely in excess of the needs of the home market; and the surplus, being sold abroad in competition with products of cheap lands and ill paid labor, fixes a ruinous price for the markets at home.

That the surplus is enormously inflated by grain that germinated only in the grain gambler's imagination, to be bought and sold in the markets of the world in competition with the genuine product.

That the beef products are depressed below the plane of general profitable production, that the sheep industry has been almost at the point of extermination, while the market for pork products is subject to great and uncertain fluctuations.

That potatoes and other root crops are not protected by their perishable nature from the evils of overproduction.

That in the matter of wool and even of eggs, the foreigner has met and conquered us in the markets of the first, and the American hen is making great strides toward supplying the deficiency of the last.

Nor must he ignore the fact that 500,000 immigrants are yearly swarming upon our shores, nearly 40 per cent of whom are farmers whose products come into direct competition with our own, and the alarming proportion of 50 per cent of whom are classed as "no occupation," and add finally to the burdens of taxation, very largely, of agricultural communities.

That according to government statistics, there rests on every farm in all this broad land an average debt of 1,288 dollars and on every home a debt of 924 dollars.

And if this does not sufficiently encourage him, let him watch 500,000 dollars in gold as it daily leaves our shores, never to return, and disappears in the banks of Europe. And consider also the fact, that while the whole amount of available money at the present time in this country amounts to slightly over 23 dollars per capita, it is not circulating to any great extent in his direction, and that the farmer's quota under present conditions is growing less and less, until it is estimated, by the middle of the 20th century, he may be able to do without it entirely and resort to the primitive colonial method of barter and exchange.

He will realize that capital is hiding itself in national, state, municipal and railway obligations, having a certain fixed rate of interest, to the enormous amount of 22,000 million dollars, being drawn from the channels of trade, commerce, and manufacture by falling and fluctuating prices and uncertain profits, thus throwing millions of workmen out of employment and largely curtailing the home market of the American farmer for his food products.

He will observe that gold is steadily appreciating in value over its companion metal, and that all values, being always determined in terms of the dearer metal, have fallen and are still falling in a like ratio; thus having the double effect on the farmer of requiring yearly more and more of his agricultural products to secure one dollar in money, and, at the same time, depriving him of his markets among manufacturing people.

In short, an inventory of present conditions reveals the following facts:

That our present coinage and financial system is greatly detrimental to the interests of the farmer.

That this is a period of much overproduction and great underconsumption, when a general normal yield of our staple agricultural products forces them below the point of profitable production.

That this last named evil will increase rather than diminish, as our surplus multiplies faster than the wants of our consumers.

That while the salaries and taxes we pay are steadily increasing, and mortgages, given in a season of prosperity, are resting heavily upon our farms, fully one-half of our debt-paying capacity has been taken from us since the year 1880, and this through no fault of the farmer, but unjust tariff and monetary legislation being mainly responsible.

It is with such environments as these that the young farmer approaches the dawn of the 20th century. As they are settled against him or in his favor, so will his future be.

A great change has been taking place in the material

affairs of this country, and will continue to do so for a long time to come, and the tiller of the soil in the future must adapt himself thereto.

He is not privileged, as were his fathers, to hew from the unbroken forest, purchased from the government at a merely nominal sum, a home and a landed estate. He can not, as did some of his ancestors, with little or no capital invested, raise enough of the golden grain to clear his indebtedness in a single year.

He must resign himself to the proposition that the era of high prices for staple farm products has gone never to return, unless it be temporarily in the event of a great national crisis.

He must take into account the natural subdivision of estates among heirs and his decreased ability to purchase, and accept the position of small land owner like a philosopher.

He can accept the situation thus far as being the natural consequence of the development of a great natural agricultural country like ours, and as being among the things he can not prevent.

He has now come to things he can and should prevent.

Says Worthy Master Horton of the Michigan State Grange: "With farm lands continually decreasing in value, many men who own good farms, borrowing money to pay taxes thereon, mortgages increasing in numbers and amounts, farmers unable to employ farm and mechanical labor, land owners growing less and farm tenants increasing, it is pertinent to consider, and for every farmer to ask himself, is this land of ours destined to follow in the same historic paths of the countries of the old world, and result in absolute centralized wealth and power, and the displacement of the individual farmer as a land owner, by a tenant peasantry. There are conditions existing and working today that seem to be forcing us dangerously near such results."

The American agriculturist has arrived at the parting of two roads and upon his selection depends the welfare of future generations.

On the one hand are the forces of concentrated wealth and power and corporate greed, and down that pathway has traveled many a nation, the condition of whose farmers may be seen in the beasts of burden in the semblance of men, who are tilling the plains of Europe today—mere hewers of wood and drawers of water for capital, political nonentities, and socially exterminated.

On the other hand are summoning us, all the honored traditions of our calling, and the end of that road is political, industrial, and financial independence and full American citizenship.

When we reflect that many of our present ills, resulting from natural causes, while they can not be prevented, at least may be greatly alleviated, and that a great majority of our misfortunes result alone from our isolated positions and divided forces, is it not a warning to us more fully to organize?

We are surrounded by organizations whose interests are antagonistic to ours. Shall we not meet organization with organization?

When one street in New York has more influence in our legislative halls than an agricultural population of 40 millions, when the manufacturer's interests are protected as against those of the producer, when honest competition no longer comes forth to bid for your produce, but instead, you are compelled to seek and accept the dictates of an organized army of middle men and grain gamblers, when they have gained the power to depress your prices, while raising them to the consumer, does not the situation demand wholesale organization among farmers to protect their own interests?

It is idle to talk of attempting to further reduce the cost of producing a bushel of grain; and, with our present economical methods and improved farm machinery, it is almost an insult to the farmers to do so. It is folly to attempt to add to your income by producing more, when you are already producing too much, for the means adopted will finally defeat its own object.

And if we should by any method accomplish such results, does not the organized force which now controls our produce stand ready with opportunity and power to absorb any element of profit we may have created?

The great question is, not how to produce more cheaply, not how to increase production, but how to market better that which we already produce.

The only remedy for the present ills of agriculture lies in the direction of education and organization. Individually we are helpless, collectively all things are possible.

And we think the prediction is a safe one, that within a single generation, the American farmer will find himself in one of two positions—either on the downward path of agricultural dependence, of poverty, of property qualification to impair his voting franchise and silence his voice in legislation, of land tenantry, evictions and social ostracism, as it exists in England today.

He will either have taken the first irrevocable steps

towards such abhorrent conditions, or on the other hand, he will find himself knit in the firmest farmers' organization the world has ever seen, one that will protect his interests every day in the year, and through which most of his business will be transacted. An organization legally incorporated for the purpose of raising farm produce and marketing the same, one that can lend money, contract debts, issue bonds, execute and foreclose mortgages, and has all the rights and can perform all the acts that an individual may lawfully have and perform, an organization with rules and regulations of the farmer's own fashioning, and with compulsory powers over its own members for the enforcement of the same, one that can protect its weaker members, and withhold their produce until the market is in fit condition to receive it.

The farmer would then be in a position to face the world. He would be in the same position, for lawful purposes, as are the members of trust companies at the present time.

Are we doing our duty when we allow an immense army of middlemen to station themselves at all points where produce is bought and sold, to dictate prices and absorb the income from crops already scarce worth the raising?

Is not the farmer almost criminally negligent, when he allows his produce to pass through the hands of several go-betweens before reaching the consumer, resulting very often in depressing the price to the one below the living point, and of so immensely increasing the cost to the other that multitudes are starving for bread in this land overflowing with food products?

We hear much of the farmer's heavy burden of taxation. But here is a needless drain upon him, whose enormity exceeds that of his State, county and local taxes combined—a tax, aside from transportation and other charges, of from 20 to 30 dollars on every thousand bushels of wheat he sells, and an equal or greater sum on all other cereals, potatoes and other root crops. Hay, wool, eggs and butter suffer even more heavily, while the dealer levies a tax of from 25 to 50 cents on every hundred weight of live beef, pork or mutton he carries to market. These are conservative estimates, and many times could be truthfully increased rather than diminished, and represent the aggregate sums collected by the several go-betweens for transacting, for the farmers, the farmers' own business.

And these enormous taxes are surreptitiously exacted, not once but at all seasons of the year, not upon the ad valorem but upon the specific plan.

We predict that the future will evolve an organization through which the farmer will transact his own business through his own paid agent, when he will remain in full ownership of his produce until it passes into the hands of the wholesale consumer. An organization that will eliminate all needless intermediaries between the farmer and his customer, and return to him the whole income from his crop less actual carrying charges. An organization that will gradually become national in its character, because of being a financial benefit to every farmer that joins it—one that will increase in a ten-fold ratio the farmer's potency in legislation, and forever remove mere questions of business from the realm of partisan politics.

And when such an organization comes, as it must come, if the farmer is not to become a mere cipher in our body politic, then will the wall that has melted away and compelled us to compete with cheap lands and pauper labor, rise again. Then will the parasites who fatten on the misfortunes of the farmer be removed from the carrying trade of his produce—then will our financial system expand broad enough for the needs of the poor as well as the luxuries of the rich, and the agricultural interests of this country obtain consideration in a measure commensurate with their importance.

The Grange and other organizations have performed a noble work in the uplifting and education of the farmer. The abuses they have corrected and the reforms they have effected have been many and great. They are worthy our constant and united support for they stand today as the only factors working for the especial benefit of the farmer.

But we have arrived at a juncture in our history when the very instinct of self preservation calls for organization, not alone for educational and social, but for financial benefit as well. Not of one-hundredth part nor one-quarter, but of the whole of our producing population. Not for spasmodic effort, but for the daily support and protection of the farmer in his social and business life.

And we believe that the man or set of men who will grasp in its full import the condition of the farmer, and carry out this idea to its full fruition, whether it comes through the machinery of organizations already existing or through another that shall expand and absorb

them all, will receive the fervent blessings of future generations.

Nearly three hundred years ago Divine Providence planted on the stern New England hills a new idea in the minds of men, an idea that the world had never heard of before. Aristocracy scoffed at it, monarchs trembled at it, and oppression tried to throttle it, but it would not down. It fired the heart of the settler in the unbroken forest, it guided the pen of Jefferson and breathes forth in every line of our Constitution, and has descended to us as a precious heritage for our safe keeping. It was the idea of self government, government near the people, the common people, of the people, for the people, and by the people.

As it has been in the past so will it continue to be in the future, a place of refuge and a bulwark of strength against all threatening evils. And the young American farmer, the living exponent of the idea and foundation of all true national greatness, shall still be worthy to be called "the uncrowned king."

RUSSIAN PEASANT LIFE.

Occupations and System of Land Ownership.

[Written for the RECORD by Vadim Sobennikoff, '96.]

The Russian empire occupies a continuous area of land over eight and one-half millions of square miles in extent. This enormous territory is inhabited by about one hundred and twenty-five millions of peoples belonging to one hundred and ten nationalities.

The popular idea of average Americans or Europeans about the Russian empire, as an enormous snow-covered plain, is quite erroneous; for, owing to her vast area, Russia has a variety of climates and physical characteristics. The only way I can account for the existence of such an idea in America or Europe is this: Americans get their knowledge from western Europe. Until now Russia is little known and understood by western Europe, and was almost unknown a century ago. The first great European explorers, who made quite an intimate, though somewhat one-sided acquaintance with Russia, were Charles XII and Napoleon I.

These explorers and their comrades, whose names are legion, received a sufficiently strong impression of the snow covered plains of Russia to haunt popular imagination down to our own times.

The truth is that the climate of Russia can satisfy even the most fastidious. There are some sufficiently cool places to keep cool even the most hot headed of the Russian people, as for example, some river valleys near Yakoutsk with an average temperature in January of 62° Fahr., below zero, and occasionally drops down to 80°. But we have places with African heat, as Merv in Turkestan with a mean temperature in July of 90°.

Besides these real and imaginary snow clad plains, we have places where any member of the Alpine Club can find a good test of his abilities; we have Khan Tengri, some 24,000 feet above sea level, which is higher than any mountain in North or Central America. In Turkestan we have another extremity, depressions some 85 feet below sea level.

Soil and vegetation present some variety. Sandy deserts of Turkestan, grassy steppes of Western Siberia, black land of Little Russia, frozen "tundras," (swamps) of the far North, gravelly steppes of Transbaikalia, and forest clad mountains and valleys of Southern Siberia.

After all that has been said it is clearly impossible to make any broad generalizations for the whole Russian Empire, with regard to climate, inhabitants, industries or systems of agriculture.

But Russia possesses an enormous territory, having a striking uniformity of its general features, its climate and physical characteristics. It is a plain, intersected meridionally by the low Ural chain, stretching from Poland to the Yenisei River and from the tundras of the far north to the Black Sea, Caucasian mountains and Turkestan deserts. This is our agricultural zone, empire of "moojik" (peasant), where is concentrated a really Russian population—Great, Little, and White Russians. Here live about 85 per cent of the population of Russia, of whom about 90 per cent are agriculturists.

This vast plain, wooded in the Northwest, becomes treeless toward the Southeast. Over the whole of its area it has a decidedly continental climate, characterized by intense cold in winter, high temperature in summer and rapid changes of seasons. Over a greater part of this plain there is lack of moisture in spring and summer. With regard to agriculture this region may be roughly subdivided into North Region, Black Earth Region and Steppe Region.

[To be continued.]

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