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Yenching
Academic
Bureau of Industry / Bureau
of Economic Experiment + Service
North China Industrial Service
Union 1920 - 1933

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PEKING UNIVERSITY

Bureau of Industry and Labor

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The great industrial development ahead of us in China is a challenge to Christianity to see

- 1st. That the development be not in the hands of forces that will use the power given by the wealth thus created for the destruction of the human race, as Germany used her power and
- 2nd. That the poor be not exploited as they are now in some industries already started in China and
- 3rd. That as far as possible the vicious relation between labor and capital that has borne such a dreadful harvest in Russia and is threatening all civilization at present, be not perpetuated in this practically new field.

In order to meet this challenge we establish a Bureau of Industry and Labor in the Peking University to act as a clearing House in the great Campaign.

Personnel.

- 1st. of the Industrial Branch.
 - (a) A body of experts in several industries will be kept in Peking. This body will include experts in textile, mining, and other industries and if possible an efficient Industrial Engineer.
 - (b) We shall also request the managers of Industries already developed in China, to allow their experts to come on special occasions for consultation especially when plans are being discussed for establishing a new Industrial plant or when some policy is being changed.
 - (c) We shall try to secure a full list of all Returned Student Industrial Experts and make a selection of those to be consulted.
 - (d) We shall attempt to have Bureaus established in all mission and government colleges. These by the aid of local experts could investigate application from their districts and report to the Head Bureau.
 - (e) We shall also invite leaders of industry in U.S.A. who are interested in any special industry to send an expert each in his own industry to watch the interest of his company.

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2nd. Labor Leaders.

- (a) We shall try to have labor Unions in U.S.A. and capital, each send a delegate. These in consultation with the efficient Engineer and whatever visiting labor representatives may be present will decide in what policy is to be followed in organizing labor and in educating both employers and laborers.
- (b) When and if the Labor Bureau of the League of Nations sends a committee to Peking to act as their eyes, ears and mouth in China, we shall invite them to make our Bureau their headquarters while in China. Our peculiar position being in touch with Government officials on the one side and with the whole network of mission and of govt. Colleges on the other will enable us to be of invaluable service in furthering their aims. They in return will strengthen our bonds especially in the matter of affecting labor legislation.
- (c) Invite the Chinese Government to appoint one or more labor leaders to be on our permanent staff.

Object.

I. The object of this bureau is to investigate industrial and labor conditions in China in general and to help in the establishment of industries by particular missions and

In order to carry out this object this bureau will first establish a Secretary's office. From this office questionnaire will be sent out to all missionaries and others in China asking

1. What industries they have already established with an account of when the work was commenced, how it has progressed and as much information regarding the work as possible.

2. What industries each station suggests should be started in that station giving reasons for starting same.

3. What industries local Chinese are desirous of starting themselves and have been asking advice or help from the missionaries in starting them.

4. Any other requests for information the missionaries may desire also.

5. Any suggestions as to what could or ought to be done in the district.

(The report not to wait on the investigation of No. 6 which can be sent at a later date)

II. To aid in the selection of education and training of experts in every industry

1. By selecting and assisting in selecting young men to be sent to foreign countries for industrial training after the admirable fashion that is now followed by the French a brief outline of which follows.

The "Association Franco-Chinoise d'Education" has been established with Mr. Tsai Yuan Pei, the President of the Peking Government University, as its President. The Vice-President is Mr. Li Yu Ying. The secretary is Mr. Grosbois, the head of the French municipal school in Shanghai with Prof. Aulard of the Paris University and others cooperating with Mr. Li Yu Ying in Paris.

The Association selects young artisans, sons of artisans, of laborers, of farmers, of small shopkeepers, etc., and teaches them the French language. Then sends them to France. The artisans go direct to a technical school. The others are distributed to factories of the various industries and when they are trained in working in the factories are sent to technical schools. A process of selection is followed during all this training and of sifting out the failures. When their course is finished they are brought back to China.

I should have stated that schools for teaching the applicants French have been established at Shanghai, Hankow, Paoting-fu, Changsha and Peking. 800 have already been sent to France and 1000 are now in preparation or on their way to France.

We desire to encourage the sending of batches of young men of this type to other countries to be trained after this same fashion and shall approach consuls, chambers of commerce, etc. as well as the Chinese government to bring this about.

2. After these experts have returned to keep a register of them with as full an account as possible of the qualifications of all the specially good ones who would answer for foremen or other important positions.

III. 1. To get in touch with all companies, etc., whether Chinese or Foreign, or a combination of Foreign and Chinese capital, and assist them in every way possible especially in the matter of securing men already trained in the industry which they wish to start, or in case such men have not been trained, or are trained in insufficient numbers, to assist them in the selection and training of the number required.

2. To attempt in so far as we can to have these companies accept a code of wages, the eight-hour day, sanitary factory and housing schemes, and if possible technical schools, etc. profit sharing, insurance, medical attention, and in general to make possible the application of the two principles that workmen are happy at their work when

- (a) their work is so arranged that they can exercise their creative or inventive faculties
- (b) when they know that all the product of their labor over and above what wages they receive goes to help some poor person who hasn't enough to eat.

In order to give a demonstration of sub-section (b) we shall run some industries as per sub-joined schedule by setting a standard wage.

In order to encourage the building of sanitary factories, etc. we shall keep a special factory architect who shall supply plans and blue prints of the whole outfit. This architect will develop one of the very first technical schools that we shall organize in Peking.

In order to encourage progressive manufacturers we shall publish a series of bulletins giving among other things the names of companies and individuals who have carried out or are attempting to carry out the reforms that we are advocating. We shall hold their course of action up for others to imitate. In doing this we shall show how by producing healthy intelligent citizens these men are building up China and doing their utmost to set her on a par among her sister nations. On the contrary we shall not spare to mention the names of men and companies that tho creating wealth are mercilessly scrapping every year as many human beings as are on their pay rolls. We shall try to keep records of all who through sickness and death are incapacitated for work and publish these figures for the really bad factories. This is work in which I believe we can enlist the students in all schools when we appeal to their patriotism and humanity.

IV. To encourage the organization of Labor Unions with sane principles for their constitution and to stimulate in every way that we can, the education of the workers.

The education shall consist of

- 1st. Learning to read and write the "Phonetic" writing and to work arithmetic. As in the campaign for securing statistics on sickness and death we shall try to enlist the services of the students in all schools to teach the phonetic system, by organizing public lectures where the students shall be addressed. The prizes awarded by the Phonetic writing Committee in Shanghai will be held before these students and on public occasion the roll of honor of those students that have done most in their work will be read and a list published of all that have taught any to read this method.
- 2nd. The reading of tracts published in both character and phonetic on citizenship, sanitation and other subjects.
- 3rd. Lectures and demonstrations on the technique of the industry in which the workers are employed.

V. To train labor leaders and Technical lecturers.

This will form the connected link between the present related Departments of the University and the Bureau of Industry and Labor.

316 4829

Pls. Return to Yenching

**NORTH CHINA INDUSTRIAL
SERVICE UNION**

PEIPING, CHINA.

FEBRUARY, 1933

**THE CHIHLI PRESS, INC
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LIST OF OFFICERS AND COMMITTEES

1932-33

Officers:

Chairman: Dr. Chang Po-ling

Vice-chairman: Dr. J. Leighton Stuart
Dr. W. H. Wong

Treasurers: Mr. P. H. Stephen Tsai
Rev. J. A. Hunter

Secretary: Dr. Chen Ta

Executive-Secretary: Professor J. B. Tayler

Committees:

Executive Committee:

The Officers, Dr. Franklin L. Ho, Dean Gideon Chen

Committee on Textile and Other Industries:

Chairman: Mr. S. M. Dean

Committee on Mineral Industries:

Chairman: Dr. W. H. Wong

Committee on Economic Research and Industrial Organization:

Chairman: Dr. Franklin L. Ho

Finance Committee: Dr. Y. T. Tsur, Dr. Chang Po-ling and
Mr. Sohtsu King

NORTH CHINA INDUSTRIAL SERVICE UNION

Several strands of interest have united to find expression in this new association. Some of the chief of these are: the growing concern with rural problems and the belief that industry must be taken into the country; the conviction that education in China requires adaptation to fit it more closely to the needs of the people in an era of fundamental social and economic change; the increasing consensus of opinion amongst economists that in the "Oriental Industrial Revolution" a prominent part will be played by decentralised industry, for which recent technical developments have paved the way; and, finally, that such industry, efficiently organised on associative and co-operative lines, will have important social values and make significant contributions to national reconstruction. It is worth while to look for a moment at the bases and implications of these beliefs.

In North China, the smallness of the farms and the nature of the farming,—the raising of field crops,—combine with the long hard winter to make agriculture a part-time industry. The farming community, except where subsidiary industries exist, has five or even six months of idle time. Also, the climate, with its uncertain and ill-distributed rainfall, renders agriculture an insecure livelihood. These two facts are perhaps outstanding in setting the conditions for industrial development. They give an immense vitality to such rural industries as now exist, despite the lack of scientific services and industrial organisation in country districts. Moreover, the density of rural population offers unique opportunity for the organised development of decentralised industry. On the fertile plains, within a radius of five miles of a marketing centre, there is frequently a population of thirty thousand people,—enough for an important localised industry.

For modern development there must be provision for research, not only into the resources and products of the region, but into the best equipment for village use. The principle adopted by the Union is to begin from where the people are and introduce improve-

ments by successive steps. At first new equipment must involve only a modest outlay; but there should be progressive substitution of better forms as skill, capital resources, capacity for co-operative action, and the demands of the market increase. To provide this technical advance the help of engineers in research and training centres is being enlisted, and steps are being taken that the fruits of their invention are made available throughout the area by suitable methods of training and demonstration.

As to training, the educationalist will not let us forget that it must not be of a narrowly technical type. The need is to create a new alertness, a wider outlook, a greater spirit of association, and amongst other things, a new artistic impulse; in other words, to find means of doing for China what the Folk High Schools have done for Denmark.

Further, rural industry must be an organised movement, protecting the home worker from the exploitation which is otherwise his bane, and the small workshop from the stagnation of isolation. Fortunately, there are many examples in the co-operative societies, the handicraft and trade associations, and the peasants' unions of Europe and in some nearer at hand in Japan, showing how this may be done. The hope of the Union is to organise local groups of producers and to federate these, as may in each case be desirable, for common interests in such fields as credit, supply (including at a later stage power) and marketing; as well as for securing trade information, designs and so forth.

The advantages of this policy are many. On the economic side the dovetailing with agriculture converts the farm income from a year's return into one for six or seven months' work; it raises the purchasing power of the great mass of the people; and it makes it possible to foster those trades and utilities which will make the most direct contribution to raising the standards of living of the peasantry; while the workers' lower costs of living in the village, as against the city, increase their real income. Socially these forms of organisation fit into the texture of Chinese society and secure modernisation with the minimum of disturbance to the institutions of the country. The combination of independent or small group production with membership of larger associations of democratic

character gives such production a high social value. From a national viewpoint, it can be initiated under a lower degree of political stabilisation than is required for more centralised types of industry and it enjoys the great advantage of being itself a stabilising factor, tending to remove the causes making for banditry and 'communism'. If successful, it will do much to prepare the way for new forms of local administration on a representative basis, which are essential if democratic institutions are to succeed in China.

It was to bring together those who might take a share in this joint enterprise that the Union was formed. To shape a policy and mould a movement that can be adapted to the manifold conditions that will be met with will require planning and administration of a high order; to create the energy by which alone its plans can be carried into effect will call for much enthusiasm. The Union appeals for the interest and assistance of all who value its purpose.

Formation of the Union.

The Inaugural Meeting for the founding of the Union was held on the 17th. September 1932, at the call of Dr. Chang Po-ling and Dr. J. Leighton Stuart. Their action was taken in harmony with the desire of the National Christian Council to see a North China group promote the policy just outlined, in which they placed much hope. It was realised that success would depend upon the co-ordinated activity, as has been suggested, of educators and economists, scientists and engineers, and even of artists, though these were not represented at the first meeting. How far these groups were brought together may be gathered from the personnel of the meeting:—

Dr. Chang Po-ling, President, Nankai University
Dr. J. Leighton Stuart, President, Yenching University
Dr. W. H. Wong, Director, National Geological Survey
Dr. Y. T. Tsur, China International Famine Relief Commission
Dr. Franklin L. Ho, Director, Institute of Economics, Nankai
Dean Gideon Chen, College of Public Affairs, Yenching
Dean Gene L. Chiao, Oberlin-in-Shansi
Mr. S. M. Dean, North China School of Engineering Practice
Mr. Liu Chao-an, North China School of Engineering Practice
Rev. J. A. Hunter, Chairman, North China Christian Rural Service Union

Professor A. L. Carson, Director, Rural Institute, Cheeloo University

Professor E. O. Wilson, Department of Chemistry, Yenching
Professor J. B. Tayler, Department of Economics, Yenching

Functions and Activities of the Union.

The first function that the Union will perform in endeavouring to carry out its policy is that of a co-ordinating centre. Through its means experience can be pooled and interest focussed. To serve this purpose it receives into membership all who have an interest in its aims, on the vote of the Executive Committee. Thus the efforts of individuals and of the institutions they are connected with may be encouraged in pursuance of a common program.

Sometimes, indeed, an institution is requested to undertake a special responsibility and then the Union may be called to assist in financing the enterprise. This is a second, and it may prove to be a very important, function.

Thirdly, the Union itself undertakes tasks for which it is better fitted than other agencies, and maintains its own executive staff. The chief field here is the organising of industries and serving them in business ways until the organisations so created are strong enough to function without such aid.

A brief statement of present activities and of plans for the current year will illustrate these different phases of the Union's work.

1. Among activities which are being carried on by various institutions as part of the co-ordinated plan may be listed:

- i. The preparation, by the National Geological Survey, of a report on the quantities and qualities of several economic minerals which can readily be mined by the local people if the means can be found of bridging the gulf between them and the market which exists, or can be created, in some large city.
- ii. The study of the textile industry in Kaoyang—a truly remarkable example of a decentralised industry—by the Institute of Economics at Nankai. The study will provide a much more careful comparison than has yet been possible between the relative merits of city and rural industry.

iii. Advice from the Department of Chemistry at Yenching in regard to the dyeing of wool; and advice to schools in the interior from the same department as to the possibilities and costs of vocational training in the tanning and working of leather.

2. In other cases the Union has gone further and financed certain inquiries. This is true of the preliminary studies of village smelting of iron in Shansi, for the improvement of which an expert has been secured to start work in the spring. An assistant of Dr. E. T. Nystrom's was engaged to map the iron ore in the region in which it is planned to make this experiment, while analyses of ore, and a preliminary test on the use of a flux, were arranged for with Yenching.

The Wool Project. But the main enterprise of the Union during these first few months has been the work of the Wool Research and Training Centre, which has been carried on for it by the North China School of Engineering Practice. This work was started with an initial grant of \$3,000 Mex. from the National Christian Council in June 1932. Wool is one of the leading products of North China and though there is a growing demand for woollen goods in many parts of China, the weaving and knitting of wool have never been indigenous industries in the villages. European experience would indicate that wool weaving is one of the best industries for the home and village. Accordingly Mr. Dean and his associates were asked, as a first step, to experiment with processes and equipment adapted to village employment. It was essential that during the first stage in the development of this industry the equipment should be of the simplest and least expensive character, but that means should be forthcoming of substituting better and more productive appliances as opportunity arose in accordance with the principle of gradualness as outlined on page one. We cannot do better than quote Mr. Dean's own account of the progress of the Centre:

"This report is written in November, less than six months after funds became available. No one knew what processes were best or what equipment was needed. Everyone was sure it would have to be very simple and cheap and capable of manufacture in a village carpenter's or smithy, or else the

villagers could not copy or buy it. The engineering staff knew nothing about the hand processes and had to learn them as would the merest beginner. Where could these processes be learnt? Those which existed in China produced inferior goods. One had to start with these inferior processes and, step by step, modify the equipment and methods through careful research, until one came to something satisfactory. The staff had a shop considered modern in Peking.....it would be easy but not right to manufacture the equipment needed in that shop, for the small towns in the interior have no such foundries, lathes and planers. Therefore a small crude blacksmith's shop and a carpenter's shop were equipt like a village shop and the equipment made and experimented with was manufactured under these conditions.

"By October 1st. it was found possible to manufacture equipment under these conditions, usable in the villages, buyable with small capital and producing good woollen cloth. At the same time the various localities interested were allowed to send in young men and women to be trained as district leaders who should go back to teach the trade to their people. The courses were arranged, according to the number of processes included, to occupy from three to seven months. The widespread interest aroused is seen from the list of localities represented in the first group to be trained:

Tsinchow, Shansi, one man and one woman
Changli, Hopei, one woman
Tinghsien, Hopei, (Mass Education Movement), one man
School of Engineering Practice, Peiping, three men
Chingho Social Centre, (Yenching), Hopei, two men
Fenchow, Shansi, two men
Yenching University Student Group, Hopei, one man
Deaf and Dumb School, Peiping, one man
University of Nanking, Kiangsu, one man

On the waiting list there are people from Suiyuan, Szechuen, Shensi, Shantung, Shansi, Hopei and Kiangsu provinces.

"We have been greatly encouraged by the fact that Mr. Li Lien-shan, brother-in-law of General Feng Yü-hsiang, has been

willing to co-operate with us. Mr. Li has just returned from spending several years in learning the wool trade in England and Germany, bringing back with him a small but complete wool mill of European manufacture. He is a man who wishes to help China and believes in the work we are attempting, so he joined up with us for two years of joint work. We were thus able to get his part time assistance as a textile engineer for our whole project and, for the two years' time, to give the district leaders an acquaintance with his modern equipment as well as a training upon the simpler apparatus. Thus those trained go out combining a knowledge of the immediately practicable with a conception of possible future progress."

Much knowledge has been gained as to the appliances which give the best results with Chinese wool and with merino, respectively. A range of carding appliances, from the simplest hand cards through stock and treadle cards to a metal carding machine, have been made, and hand mules, based on the Welsh type but modified by experiment, are being successfully used by Mr. Li in preference to his European machine. Other problems remain, but the situation is well enough in hand, as far as wool is concerned, to justify an effort to adapt the equipment to cotton.

An equipment sufficient for eight families or twenty people can be produced at the Centre for \$160 Mex. A better equipment, providing occupation for fifty persons, with a production of twenty to forty pounds a day according to the fineness of the yarn spun, can be supplied at \$560 Mex. Third and fourth stages have been worked out and available when they may be required. The expense in these cases runs into several thousands of dollars.

This Wool Centre has been described in some detail since it offers a concrete illustration of how the principles enunciated on the first two pages can be worked out in practice. The Union is seen actually applying scientific invention to the improvement (or rather here the establishment) of a rural industry, on a basis which permits of progressive development.

The Organisation of Local Industry. In order to test the readiness of farmers to respond to calls for organisation on co-operative

and associative lines, an experiment in the collective marketing of Hsiho cotton was undertaken in October and November.

A favourable situation was chosen in Shentse, Hopei, where for some years there had been a union of co-operative societies affiliated to the China International Famine Relief Commission. It has been customary for the farmers and dealers to water the cotton after ginning and to throw in little bunches of seed, to increase the weight, while they have made no effort to remove stained or defective fibre. Consequently all the cotton has to be sorted in the godowns and mills in Tientsin. An effort was made on this occasion to teach the co-operating farmers the importance of standards and to induce them to sort the seed cotton and supervise the ginning and baling, so as to cut out the practices referred to. Some farmers responded nobly; others required constant supervision; but the experiment was successful in putting cotton on the Tientsin market in better condition than had previously been known. Moreover the farmers, although accustomed to selling their cotton to dealers on the spot for cash, were sufficiently interested to allow their produce to be shipped without any advance payment, and trustful enough to do so before the cotton was sold and with no guarantee as to price. Fortunately their confidence was rewarded by a gain of nine or ten per cent. The real test, however, lay in the possibility of securing quality and in the ability to co-operate; in both respects the results were most encouraging.

Mr. Lu Kuang-mien, who handled the experiment, has since been engaged as assistant secretary and by the courtesy of Mr. Dean an office has been opened at the Wool Centre, 50 Kulouhsi, Peiping. Mr. Lu's duties will include maintaining knowledge of, and touch with, the markets so as to enable him to put the producing groups in touch with demand and, when necessary, to organise supply and marketing channels for them.

The Present Year.

During the year 1933 our plan is to develop the wool work, devoting attention to the design of a simple condenser, or alternative means of achieving the condenser's purpose; to the study of wool supplies and of the demand for woollen goods in North China; and to the organisation of the local production centres. At the same

time a beginning will be made with experimentation on cotton equipment on lines parallel to those followed for wool. This study will include the possibility of devising an equipment which, with the least modification, can be adapted at one time to woollen goods, at another to cotton. A number of inquiries have been received as to this possibility. An item of \$7,705 Mex. has been budgeted for this textile work.

A metallurgical expert is expected to arrive in the middle of April to attempt the improvement of the village smelting of iron in Shansi. The extraordinary situation exists that although there are enormous losses of iron in the fourfold process by which the village smelter obtains malleable metal, he is still able to sell his product at a price which corresponds closely to the operating costs (exclusive of overhead) of producing pig iron at the blast furnace at Yangchuan which uses the same ore. The hope is to enable the villager to produce a good machinable foundry iron instead of his present pig,—which is so hard and brittle that it cannot be machined. The expense of this work is being met partly by a gift from Mr. Rockefeller to the National Christian Council and partly by friends in Shansi who are willing to meet the cost of a small furnace. Mr. Rockefeller's gift was \$4,000 gold.

During the early part of the year the collecting and analysis of samples of ceramic materials will be proceeded with as rapidly as possible, as a preliminary to the attempts we desire to make—as soon as funds permit—to introduce a more scientific and economical practice into the pottery industry in North China. Study of present practice in two centres in Hopei has already been made and some analytical data secured and these give clear indications of the possibility of important improvements. Cheeloo University is deeply interested in the glass manufacture at Poshan and it is desired to assist them in some contemplated research in this field. In our budget we have an item of \$1,000 Mex. for the glass and of \$5,900 for pottery, which would provide for the establishment of experimental work in the latter field late in the year.

One of the major tasks of the current year is expected to be the consideration of the types of vocational training which may be possible for rural schools that are anxious to fit their pupils, or

at least some of them, for village industry. The consideration will extend, not only to the technical training required but to the place it should occupy in the whole system of rural education. Reference has already been made to Yen-ching's assistance in regard to leather. All the educational institutions in touch with the Union are actively interested in these problems. They are however some of the most difficult in the whole field of education.

The total budget for the year amounts to \$51,750 Mex., of which \$36,200 is in hand or promised. There remains a sum of \$15,500 to raise, of which it is hoped to secure \$1,200 gold in America, £350 in England, and the balance locally. Until this has been secured it will be impossible to go forward with confidence.

The Future

Early in the current year alternative plans will if possible be drawn up covering a period of three years beginning from January 1934. Suggestions have sometimes been made that the logical course is to establish a Rural Industries Institute, but there seems to be good reason for allowing an experimental period before making an appeal for the large funds which would be required for the founding of such an institute. Even so a considerable expansion of work already started will be called for in the next three years if success attends our present efforts and it is desirable to enter the ceramic field on an adequate basis. The funds should, if possible, provide for visits, in other departments than the iron, for foreign experts, as soon as the time seems ripe in each particular trade.

The textile section which has made a promising start under Mr. Dean's able direction should be placed in a position to see what can be done to perfect an already established and important rural industry such as that at Kaoyang, which has grown up without any fostering care. In addition to those expert in textile machinery the services should be secured of those familiar with textile design and the whole technology of the cotton fibre and rayon.

If Mr. Walters is successful with the iron smelting in Shansi, the problem will become that of improving the local iron trades producing agricultural implements, tools, household requirements, and the growing needs of village industry.

An attempt should be made to improve not only the actual pottery manufacture at one of our northern centres such as Peng-cheng, but also to reorganise transportation, improve the roads, provide for co-operative or other modern banking, and investigate the problem of the provision of electric power.

There are of course many other possible projects almost as urgent and important as these. It would seem to be desirable to discuss the whole policy with those best able to advise in connection with it; to seek the interest of official bodies and foundations in order that progress may not be delayed if, and when, success in any particular direction is assured. Once the methods have been satisfactorily worked out and competent staff trained there is no reason why great extension should not be possible throughout the whole north and northwest, in the main fields of textiles, metal working, wood working, leather, paper, ceramic, chemical and many smaller trades.

2nd February, 1933.

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An attempt should be made to improve not only the actual
factory conditions in use of our modern centers such as
shops, but also to recognize the importance of the
worker for co-operation in other modern training and
the problem of the worker of electric power.
There are of course many other possible projects aimed at
improving and expanding the work. It would seem to be desirable to
consider the whole policy with those first steps in connection
with it to seek the interest of official bodies and foundations in order
that progress may not be delayed if and when success is attained.
Some attention is needed. Thus the work of the labor union
worked out and completed and should there is no reason why great
extension should not be possible throughout the whole north and
northwest in the main fields of rubber, metal working, wood working,
leather, paper, chemical, electrical and many other lines.
The February, 1933.

Extracts from the Constitution and By-laws

The object of the Union shall be the furthering of rural and small scale industries through the provision of research, of training, and of assistance in co-operative organization, with a view to improving the livelihood of the people.

Membership may be either individual or corporate; and for each of these it may be annual, permanent or endowment. All individuals and bodies interested in the purpose of the Union are eligible for membership if nominated by five existing members and approved by vote of the Executive Committee.

The following scale of dues or subscriptions is in force until further notice:

	Annual	Permanent or life	Endowment
Individual	\$10.00 (Mex)	\$100.00 (Mex)	\$1,000.00 (Mex)
Corporate	\$50.00 ,,	\$500.00 ,,	\$10,000.00 ,,

Corporate bodies, whether educational or scientific institutions or co-operative or other societies, may appoint two members to represent them who shall have precisely the same rights as individual members.

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Extracts from the Constitution and By-laws

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further notice:

	Annual	Permanent	Endowment
Individual	£10.00 (Min.) £100.00 (Max.)	£100.00	£1000.00 (Min.) £10000.00 (Max.)
Corporate	£50.00	£500.00	£10000.00

Corporate bodies whether educational or scientific institutions
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Bailie*

To the Editor of the Dearborn Independent:

Mr. Joseph Bailie, Head of the Bureau of Industry of Peking University, has spent twenty-seven years in China, and knows the Chinese as well as any foreigner in that country; and is certainly better known by them than any other individual in his line of work.

One of the greatest problems facing the Chinese today is the adaptation of their mode of life and standard of living, and indeed of their whole civilization, to the life and development of the rest of the world. China is still in the agricultural stage, but is being forced to develop industrially, and with this development, which necessarily must come even more rapidly than in other countries, have come the dangers of exploitation by capitalism, and by various forms of industrial oppression. Mr. Bailie from the very first has had it upon his heart to help solve this problem, and to lighten the load of the average wage-earner in China.

China is a vast agricultural nation; the Chinese have been farmers for forty centuries; but until recently, there have been no modern methods of agricultural development. Mr. Bailie was responsible more than any other individual for the founding of the first School of Agriculture in China, the School in connection with the University of Nanking, Nanking, China. There had been no cultivation of native fruits by the Chinese, and no scientific methods of silk culture until these two important features were undertaken by this School under the leadership of Mr. Bailie, who was made the first Dean.

China also suffers from lack of forests, and the School made a valuable contribution to the work of reforestation by carrying on various experimental stations, of which that situated at Purple Mountain is best known.

After the school had been successfully launched, and following the great floods that occurred in 1917, bringing famine and destitution in their wake, Mr. Bailie turned his attention to flood and famine relief, and was instrumental in founding an important piece of colonization work for these refugees and for the destitute classes. This colonization work was carried on in the Northern provinces of Manchuria and Mongolia, and Mr. Bailie personally conducted parties there to help them stake out claims and develop the land. While engaged in this work he was twice attacked by roving bands of discharged soldiers, masquerading as robbers. The second time he was severely beaten; his arm and one rib were broken; and he was robbed of all his money and an important decoration conferred upon him by the Chinese Government for his achievement in colonization work.

Having contributed thus to the development of scientific agriculture and reforestation in China, and to the solving of the land problem and the relief of economic pressure by his colonization project, Mr. Bailie is at present engaged in the work of the Bureau of Industry recently established by Peking Uni-

versity. The ideal of this Bureau is to humanize the fast developing industrial relations in China; to help make these relations humane and fair; and to do this before the situation has become fixed, and while there is yet time to form and guide this development. The Bureau aims to collect facts through surveys concerning the present industries established in China; to encourage the establishment of other industries; and to influence them to adopt at once the highest principles of cooperation and fair play, instead of allowing these relations to develop as they have in other countries without these guiding principles and in a way that would produce bitterness and class feeling.

The situation in China at present is unique. As a recent writer of world renown said, "China presents the most enthralling drama anywhere enacting," and into this drama Mr. Bailie has thrown himself with all his fiery courage and warm heart as the champion of the Chinese workers, who are now facing what may develop into a great tragedy of economic oppression and subjection. The situation in China cannot but compel the attention of anyone who is interested in present economic problems in America; and of equally compelling interest is the work of Mr. Bailie, in his attempt to aid in the solution of these problems, both because of his unusual personality and of the issues that hang upon his success.

W. Reginald Wheeler,

Secretary of the University.

April 16, 1920

CONDENSED STATEMENT FOR THE BOARD OF TRUSTEES
CONCERNING BUREAU OF INDUSTRY.

By Mr. Joseph Bailey

1. The chief aim of the Bureau is to humanize the industries that are about to be introduced into China.

2. We do not desire the Trustees to pass on any constitution at this meeting, but to consider the general aim and policy, and if these are endorsed, to refer the whole matter to an industrial committee, and that when that committee is drawing up the constitution, Professor Woodworth be called for consultation.

3. We request that the Bureau be financially independent of the University, but affiliated with it. That is, that the University will not be in any way responsible for financing the whole scheme beyond the salaries and expenses of those mentioned in today's docket. This includes especially the salary and expenses of Mr. Bailie, and of Professor Woodworth for two years, the expenses to be a first claim against money raised by them.

4. That Professor Woodworth and Mr. Bailie be authorized to spend a year if necessary, in the United States to canvas for men and funds for the Bureau.

5. That a letter be given Mr. Bailie, introducing him to the head of the Bureau of Immigration, and to Mr. Gompers, with the object of discussing ways and means of bringing students to America, to be placed in industrial plants as workmen, for a time sufficient to learn all about that particular industry, after which they are to return to China.

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CHINA'S GREATEST NEED.

Outline.

What it is.

Other views. Evangelization. Political Change.

Inadequacy of education.

Social conditions must change. Education will change.

Practical Education.

Must develop here. Must have outside help. Must combine school and apprentice methods. New equipment for schools. New qualifications for teachers. School must be large. Organization like business. Must avoid uniformity.

The Industrial University.

Originated in China. A missionary enterprise. A comprehensive enterprise. Not competing with older enterprises. A laymen's mission. Adjustable to the needs of society. Compensating present inequalities. Special functions to aid people. Special aid to other institutions. A world-wide enterprise. Interchange. A common language. Classes of undertakings. Replacing of imports. Production of exports. Development of new industries. Profits all for workers. Socialistic possibilities. Spiritual object.

A year's observation in China would not be enough to form an adequate estimate of the relative importance of the many evident needs of the country, but when one's estimate coincides with the views of the majority of those longer in residence and of the Chinese themselves, one can express it with confidence. The relative importance of any need will vary according to the conditions and the greatest need is that for which the supply falls furthest short of the demand. Other things may be equally or more essential to life, like the air we breathe, but if the supply is adequate they cease to be needs. If we seek for the thing which is most desired, because poorly supplied, that which, when it is supplied, will also make more possible other desirable things it is safe to say that China's greatest need is industrial education. While the majority with whom I have come in contact agree in this thesis, there are others who would put the emphasis elsewhere while agreeing that industrial education is worthy of a second place. Among these are numerous missionaries who quite naturally think that evangelization holds the first place. Many other missionaries, and it has been particularly

missionaries of long experience in China, who, having felt the cramping effect of the low economic condition of the common people, limiting their spiritual growth, preventing the development of self sustaining and self propogating native churches, are ready to hold that Christian philanthropy must first prepare the ground through education before Christianity can strike deep into the soil, and that this education must be along practical lines.

Another group including some missionaries and many educated Chinese give the first place to the reform of the political situation. The great masses of the Chinese people accept whatever form of government which may be imposed upon them with remarkable decility and as a natural consequence they are systematically exploited for the enriching of the rulers. Among many of the more enlightened this condition has become unbearable and political unrest beats itself between the strongly entrenched officialdom and the inertia of the great unthinking masses. Many realize the hopelessness of accomplishing great and permanent reforms until education of the modern practical sort has permeated into and made mobile the great body of the Chinese nation.

Some have questioned the efficiency of education to meet China's present needs because of the very large number of returned students who have succeeded in accumulating the material of western education but fail to find a place for themselves in the eastern civilization. There are two reasons for this situation. First, the old civilization of the east must be changed to conform to modern conditions, these educated men must not expect to settle back into the status of the past and cannot expect to find on their return that China of itself accomplished the transformation necessary to enable them to find a place suited for the exercise of their newly acquired attainments. They are confronted with the very difficult task of recreating their world. It is for this particular purpose that they were given the unusual advantages of western study. They need to take hold of this task and not wait for others to find work for them.

The second reason for their failure to find a place for themselves is in the kind of education they received. Western educators are alive to the fact that changes are necessary to adjust their schools to the needs of the present western civilization.

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The better education of the masses is bound to enlarge the number of "learned professions till all occupations are "learned" and adequately provided for in the schools just as farming is becoming a "learned profession" in fact with the present development of the agricultural colleges.

It is not the crude early experiments towards industrial education that will meet China's needs but an efficient system which will make people effective and prosperous. This system will have to develop largely in China if it is to be properly adjusted to the needs of the country.

It will need all it can get from America or elsewhere but the simple transplanting of any system can only prove disappointing and misleading. What most needs to be changed in American industrial education is the closer conformity of the teaching materia and methods with actual practice.

We need most of all to incorporate into school work the good features of the apprentice system so that practical skill and economic efficiency may be conferred on the student instead of the opposite of these which is too often the outcome of school training. It must also have the close personal contact with the teacher which the apprentice system provides. We must have something a great deal better than the apprentice system in the production of greater versatility and a broader outlook on life. It must be more certain than the apprentice system in providing able teachers and in guiding the student into the class of endeavor for which his natural inclinations and powers best fit him.

To bring about these improvements it will be necessary for the schools of the future to acquire the tools and equipment of the modern factory and to operate the plant on a sound business basis. This will involve the raising of the standard for teachers, requiring of them, in addition to the qualifications which we now insist upon, manual skill and sound business sense, qualifications which many may present teachers conspicuously lack. This will involve also that the school assume the risk of modern business life and control capital in a way, or rather to an extent not heretofore attempted. Finally if the coming school is to meet all the economic needs of the coming generations it must

become very large including within its activities every variety of business necessary to our modern highly specialized civilization. Schools to attain to this ideal cannot remain small isolated units but must adopt the same policy of combination and effective organization that has been found necessary in the conduct of modern business operations. Schools must be united into a system modeled on the organization of a business corporation in the place of the loose plan of inspectors and supervisors which seems to tend to the suppression rather than the development of the initiative of the teachers and to produce uniformity in the place of efficiency which requires diversity since teaching is art and not the manufacture of a standardized product.

If this thesis is accepted then the great question of the day is how these ideals can be realized. The plans of the proposed Industrial University which will be organized along the broad lines just specified as a contribution towards the realization of this great need in China and elsewhere will therefore deserve attention.

The plans originated in China. The first organization formed to promote the enterprise was composed of Chinese teachers and it is expected that the institution, while by no means limited to China, will find in this country the opportunity for early and rapid development. The expectation is to secure the necessary initial capital and the first teachers in America and to launch the enterprise as a Christian mission. Among missions it will differ from those now operating in much the same way that it will differ from ordinary schools.

The work of the Industrial University as a whole will include everything now well done by other missions and other schools, but not in such a way as to compete with these institutions. It will not open a new branch where a school, a mission, or hospital is now working except when desired by that institution and then only carry on those things at such a place as the existing institutions cannot do. It will thus come in as a reinforcement and not as a competitor since it will cooperate chiefly with missionary institutions in which the preaching of the gospel is already fully provided, for it will

make the least preparation for this kind of service and will be chiefly a mission devoted to the physical needs of man, including his health, his mental growth and his economic success. It will be largely devoted to the production of Christian laymen upon whom in the last analysis the success of the church depends. From the start it will be primarily a layman's mission not only supported by laymen as are other missions but organized and controlled by laymen for laymen.

The fundamental principle of the Industrial University is that our duty to God is to make of our lives the greatest success in every particular and to aid others to obtain the same success. While it may be the duty of one individual in a crisis to sacrifice all else so as to accomplish one object, others and society as a whole must proceed in an orderly and balanced course and those who plan for social organization should either consider the whole body of the needs of society or carefully subordinate their own particular field, making it contribute to the whole neither more nor less than its appropriate share.

If missions and schools have failed to contribute to a balanced growth of society it is either because they have gone ahead or lagged behind instead of keeping pace with social progress. Schools have wasted effort in making too many teachers, preachers, lawyers and doctors, and delayed progress by diverting minds to these professions that should have been leaders in the various lines of business, manufacture and other physical activities according to the needs of the world of today.

The Industrial University has been planned with a view of minimizing such misdirected effort, not by curtailing any of the teaching work now done but by supplementing it by adding just what is needful to secure balance. The excess of professional men is relative and not absolute and there will be no excess as soon as they are balanced by the proper number of men trained in the neglected subjects. The Industrial University tends to be unsymmetrical in its curriculum and not uniform in its various branches in order to counterbalance the prevailing forms of education in the different localities. One way in which it will endeavor to supplement existing institutions will be by giving particular

attention to people of such age or lack of preparation that it acts as a bar to their receiving the advantages of present facilities. It will also endeavor to serve those who have already received all the present schools have to offer them. Again it will strive to serve those who cannot now overcome their financial handicap. A class of service which the Industrial University can render existing schools is by providing capital, assuming financial risks, securing specially trained teachers for temporary or continuous service and giving them the use of its world wide business organization for the sale of commodities or the purchase of supplies.

The plans of the Industrial University include the establishment of branches in all parts of the world because the need of industrial education is not limited to any country but is a universal want which the people of many countries are discussing and endeavoring to meet, though in too small a way. Since the plans are so broad there will be two necessary conditions for unity and success. First: there must be a continual interchange of membership between the various branches, and second: there must be a common language. To accomplish the first a regulation of the institution will require a period of residence each year in another branch from the one which the member considers his home, thus binding the whole institution together by personal acquaintanceships. The common language will be English since that has now come to be the language of the greatest markets of the world, in nearly every continent, and of the major part of the shipping of the world.

The world is now entering an era of universal intercourse and international relationships making the realization of universal brotherhood essential to the peace and prosperity of the world. There is need of the directing of every influence towards this end. It is particularly desirable that the business of the Industrial University include exporting and importing since this business can be indefinitely expanded with the least disarrangement in the internal economic condition. The University will endeavor to avoid competition with the existing industries of the country by limiting as far as practical its activities from providing for its own wants, to the three classes of enterprises; 1st, endeavoring to replace imports by products manufactured in the country; 2nd, the manufacture of goods which

can be profitably exported, and 3rd, the development of new industries.

The amount of imports into any country ought continually to increase but everywhere there are products which occupy the tonnage of our ships that could equally well or better be produced in the country to which they are sent. The manufacture of such things should prove particularly profitable because if done equally efficiently the profit is larger by the amount of the cost of transportation.

The amount of exports is a gauge of the prosperity of a country. Any broad plan for the improvement of the financial condition of a people must include means of increasing their exports. The Industrial University in each country will therefore endeavor by all means to cater to the markets of other countries and will organize the machinery to study and exploit these markets.

The development of new industries is the measure of the progress of a people and the Industrial University plans to protect and develop the constructive contributions of its members in the fullest manner possible. All such things add to the wealth of the world and should be fostered in a systematic manner. Many ideas and inventions are now undeveloped and lost to the world because of the lack of co-operation between the inventor and the man with business sense, capital or mechanical skill. The Industrial University will be so organized that this co-operation will be brought about and the members of the institution will reap the financial profits that will follow.

All profits will accrue to the individual members. The University will not become rich as an institution. It will not acquire property that cannot be made to yield a revenue and will dispose immediately of anything that ceases to be productive. All that it owns will be covered by the bonds owned by members to whom it must return interest. The members may become wealthy but if they do it will be as individuals, not as a community. The acquiring of wealth will not change the status of a member as regards his duties or obligations. Just as in any other school all must study and all must work without distinctions to wealth. The effort will be made to have the life of all within the institution more attractive than anything that money can buy outside and to the extent that this

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effort succeeds the institution may develop into a socialistic community. If this does happen it will be so only because the self interest of the members holds them together. As in any other school that which draws the members will be the advantages that it has to offer. They must go from other schools because they must make their living or because the school does not make provision for the indefinite continuation of study. Here the teaching is intended to include everything necessary to life and has therefore no inherent limitations. However, whether this be the result or not the kind of instruction is that best calculated to fit a man for life either within or without the institution since it involves doing practical things in a practical way.

While the stress is thus laid on things that can be measured with money we believe that this is best way to lead to the higher and finer things of life. After the material things are conquered, after one has learned efficiency in earning his daily bread, he will have the time and power and the inclination to also pursue those things which are more than bread.

We believe that this follows from the natural God-given instincts of man, that it is the natural reaction which will follow from the self wrought relief from the limiting environment which we wish to ameliorate.

We believe that this Industrial University will not be built upon the sands but on the firm foundation of the wisest and truest philanthropy, contributing in a most effective way to the abundance of the life eternal.

what I know up to date for the meeting of the Board of managers
in Peking. JB

TRUSTEES OF
PEKING UNIVERSITY

PEKING UNIVERSITY

Bureau of Industry and Labor

The great industrial development ahead of us in China is a challenge to Christianity to see

- 1st. That the development be not in the hands of forces that will use the power given by the wealth thus created for the destruction of the human race, as Germany used her power and
- 2nd That the poor be not exploited as they are now in some industries already started in China and
- 3rd That as far as possible the vicious relation between labor and capital that has borne such a dreadful harvest in Russia and is threatening all civilization at present, be not perpetuated in this practically new field.

In order to meet this challenge we establish a **Bureau of Industry and Labor** in the Peking University to act as a clearing House in the great Campaign.
Personnel.

1st. of the Industrial Branch.

- (a) A body of experts in several industries will be kept in Peking. This body will include experts in textile, mining, and other industries and if possible an Industrial Engineer.
- (b) We shall also request the managers of Industries already developed in China, to allow their experts to come on special occasions for consultation especially when plans are being discussed for establishing a new Industrial plant or when some policy is being changed.
- (c) We shall try to secure a full list of all Returned Student Industrial Experts and make a selection of those to be consulted.
- (d) We shall attempt to have Bureaus established in all mission and government colleges. These by the aid of local experts could investigate applications from their districts and report to the Head Bureau.

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- (e) We shall also invite leaders of industry in U. S. A. Who are interested in any special industry to send an expert each in his own industry to watch the interests of his company.

2nd. Labor leaders.

*Since coming to America
I see the danger of making
in this matter*

- (a) We shall try to have labor Unions in U. S. A. and capital, each send a delegate. These in consultation with the Efficiency Engineer and whatever visiting labor representatives may be present will decide on what policy is to be followed in organizing labor and in educating both employers and laborers.
- (b) When and if the Labor Bureau of the League of Nations sends a committee to Peking to act as their eyes, ears and mouth in China, we shall invite them to make our Bureau their headquarters while in China. Our peculiar position being in touch with Government officials on the one side and with the whole network of missions and with govt. Colleges on the other will enable us to be of invaluable service in furthering their aims. They in return will strengthen our hands especially in the matter of affecting labor legislation.
- (c) Invite the Chinese Government to appoint one or more labor leaders to be on our permanent staff.

Object.

1. The object of this bureau is to investigate industrial and labor conditions in China in general and to help in the establishment of industries by particular missions and
In order to carry out this object this bureau will first establish a **Secretary's office.** From this office a questionnaire will be sent out to all missionaries and others in China asking

- 1. What industries they have already established with an account of when the work was commenced, how it has progressed and as much information regarding the work as possible.
- 2. What industries each station suggests should be started in that station giving reasons for starting same.
- 3. What industries local Chinese are desirous of starting themselves and have been asking advice or help from the missionaries in starting them.
- 4. Any other requests for information the missionaries may desire also.

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5. Any suggestions as to what could or ought to be done in the district.
(The report not to wait on the investigation of No. 6 which can be sent at a later date)

6. What industries are established by the Chinese in the district with a statement of.

- a. Investment of capital
- b. Number of workers
- c. Hours of labor
- d. Wages
- e. Remarks as to how labor is treated

II To aid in the selection, education and training of experts in every industry.

1. By selecting and assisting in selecting young men to be sent to foreign countries for industrial training after the admirable fashion that is now followed by the French a brief outline of which follows.

The "Association Franco-Chinoise d'Education" has been established with Mr. Tsai Yuan Pei, the President of the Peking Government University, as its President. The Vice-President is Mr. Li Yu Ying. The secretary is Mr. Grosbois, the head of the French municipal school in Shanghai with Prof. Aulard of the Paris University and others co-operating with Mr. Li Yu Ying in Paris.

The Association selects young artisans, sons of artisans of laborers, of farmers, of small shopkeepers, etc., and, teaches them the French language. Then sends them to France. The artisans go direct to a technical school. The others are distributed to factories of the various industries and when they are trained in working in the factories are sent to technical schools. A process of selection is followed during all this training and of sifting out the failures, When their course is finished they are brought back to China.

I should have stated that schools for teaching the applicants French have been established at Shanghai, Hankow, Paotingfu, Changsha and Peking. 800 have already been sent to France and 1000 are now in preparation or on their way to France.

We desire to encourage the sending of batches of young men of this type to other countries to be trained after this same fashion and shall approach consuls, chambers of commerce, etc. as well as the Chinese government to bring this about.

2. After these experts have returned to keep a register of them with as full an account as possible of the qualifications of all the specially good ones who would answer for foremen or other important position.

III. To get in touch with all companies, etc., whether Chinese or Foreign, or a combination of Foreign and Chinese capital, and assist them in every way possible especially in the matter of securing men already trained in the industry which they wish to start, or in case such men have not been trained, or are trained in insufficient numbers, to assist them in the selection and training of the number required.

2. To attempt in so far as we can to have these companies accept a code of wages, the eight-hour day, sanitary factory and housing schemes, and if possible trade schools, profit sharing, insurance, medical attention, and in general to make possible the application of the two principles that workmen are happy at their work when

- (a) their work is so arranged that they can exercise their creative or inventive faculties
- (b) when they know that all the product of their labor over and above what wages they receive goes to help some poor person who hasn't enough to eat.

In order to give a demonstration of sub-section (b) we shall run some industries as per sub-joined schedule by setting a standard wage.

In order to encourage the building of sanitary factories, etc. we shall keep a special factory architect who shall supply plans and blue print of whole outfit. This architect will develop one of the very first technical schools that we shall organize in Peking.

In order to encourage progressive manufacturers we shall publish a series of bulletins giving among other things the names of companies and individuals who have carried out or are attempting to carry out the reforms that we are advocating. We shall hold their course of action up for others to imitate. In doing this we shall show how by producing healthy intelligent citizens these men are building up China and doing their utmost to set her on a par among her sister nations. On the contrary we shall not spare to mention the names of men and companies that the creating wealth are mercilessly scrapping every year as many human beings as are on their pay rolls. We shall try to keep records of all who through sickness and death are incapacitated for work and publish these figures for the really bad factories. This is work in which I believe we can enlist the students in all schools when we appeal to their patriotism and humanity.

- iv. To encourage the organization of Labor Unions with sane principles for their constitution and to stimulate in every way that we can the education of the workers.

The education shall consist of

1st. Learning to read and write the "Phonetic Writing" and to work arithmetic. As in the campaign for securing statistics on sickness and death we shall try to enlist the services of the students in all schools to teach the phonetic system, by organizing public lectures where the students shall be addressed. The prizes awarded by the Phonetic Writing Committee in Shanghai will be held before these students and on public occasions the roll of honor of those students that have done most in this work will be read and a list published of all that have taught any to read this method.

2nd. The reading of tracts published in both character and phonetic on citizenship, sanitation and other subjects.

3rd. Lectures and demonstrations on the technique of the industry in which the workers are employed.

- v. To train labor leaders and technical lecturers.

This will form the connected link between the present related Departments of the University and the Bureau of Industry and Labor.

**PROF. BAILIE'S COLONIZATION
WORK AT KIRIN AND THE
CHINESE MILITARISTS**

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BY HOLLINGTON K. TONG

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**Reprinted from Millard's Review
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Shanghai, China - - - September 1, 1919.

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**Prof. Bailie's Colonization
Work at Kirin Stopped
by Militarists**

BY HOLLINGTON K. TONG

PROFESSOR Joseph Bailie, while engaged in teaching flood refugees from the province of Chihli how to become independent by cultivation of the soil at a little mountainous village called Omuh sien in Manchuria, on June 26 was severely beaten by six soldiers after which they then robbed him. Although the Chinese authorities were aware of the outrage perpetrated upon Prof. Bailie, who is known as the "Purple Mountain Colonizer," they have not yet done anything for him. The foreign victim of Chinese militarism loves the Chinese so much that he is reluctant to present claims for indemnity for the losses he suffered, knowing too well that it would be the innocent who would have to pay.

For ten years Professor Bailie has been devoting his time and energy to the establishment of a model settlement which would serve as a nucleus for extensive colonization in China. In carrying out his plans to render this form of public service he has lived together with poor farmers in places far away from civilization, foregone the comforts of home life, and refused remunerative positions. But the Chinese government does not show much appreciation of his work.

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The flood of 1917 devastated many districts in Chihli and brought starvation to thousands of people. The land in the affected districts was so low that there was no way to drain the water and make it again fit for agriculture. Prof. Bailie volunteered to assist. His scheme was to send famine sufferers to Manchuria for the colonization of waste land. The North China Christian Flood Relief Committee agreed to finance it. At the beginning of 1918 he took the first group of famine sufferers to Kirin and was in charge of them until July 26. The Flood Relief Committee has now decided to give up the colonizing work and leave the colonists to look after themselves in the land that had been plowed. More than \$9,000 which had been voted for the scheme has been withdrawn.

The work, though not absolutely lost, is practically destroyed by the soldiers. This last episode of a most promising undertaking is sad indeed. "I shall never again attempt colonization in any place where law and order cannot be maintained," said Prof. Bailie, who attributed the failure of his scheme to misgovernment. "My heart goes out to the poor people in Manchuria where I attempted to be of assistance. They are suffering in silence. No one is voicing their oppression. I feel mean in leaving them, but I would certainly be shot if I went there again. No sooner have the young men from Anhwei and Kiangsu, who I suppose are good enough in their own homes, been to Manchuria as officials, than they enter into the spirit of the gang of robbers that surround their yamens. When are we going to have men of character occupying these positions of trust? But I needn't ask that question, for when a decent official tries to act like a human being he is soon driven out as in the case of the previous official at Omusien, a Mr. Mao. Mao was well liked by the people, but the King-makers at

Omusien didn't want him. So they drove him away."

A graphic account of his work among the Manchurian colonists and of several incidents leading to his maltreatment at the hands of soldiers, the so-called guardians of the law, which will at the same time give an accurate idea of the terrible conditions existing in that part of the country, has been obtained from Prof. Bailie, who reluctantly discussed the matter with the writer.

At a place called Pei Da Yang, about ten li northeast of where I had been living at Ichisung, we succeeded in breaking 75 English acres of land this spring. The time we had in which to do planting of the staple crops of corn, beans, millet and *pai ts* lasted from May 25 to *Mang Chung* which corresponded this year to June 7. The slow methods employed by the Chinese in planting newly broken land would, if followed, have prevented our getting seed into more than a fraction of the land as it was impossible to employ enough men to do the hoeing involved. We therefore rigged up seven pairs of three-section breaking harrows, putting three horses to each pair, and with these seven harrows going, began tearing out the roots of bushes and shrubbery. Fifty men were put to using pickaxes and hoes to complete the clearing, and collect the roots and rubbish in piles all over the land. The land was pulverized in a way that was novel to the people of the district and many of them came to study our methods. We had our land in better shape before we began to sow our first crop than they usually had theirs for their third crop. As I had not any one there who could broadcast the seeds, I got up early every morning, crossed the mountain, sowed the seed broadcast myself, and at the same time supervised the general work. This I kept up until June 7, when we still had

two days' work before we could finish our sowing.

On June 7 Mr. Hu, the headman of that district, and as true and honest a man as I have ever met, came to us in the field where I was sowing, and squatted down to tell me something. When I also squatted he told me quietly that he wanted me not to come back to Pei Da Yang for some time, as the whole place was very unsettled. Pointing to a mountain north-west of where we were and about 4 or 5 li away, he said: "Last night twenty *hutze* (robbers) stopped at the house of "so and so." I heard them say that they wanted to kidnap you on the way to or from Pei Da Yang, carry you into the recesses of the mountains and hold you there for ransom." He lowered his voice still further and whispered: "I think they are Chinese soldiers masquerading as *hutze*." He finally asked me to take his advice seriously as it didn't matter much if one of them were carried off, but if I was carried off it would mean trouble with outside nations. I did take what he had said seriously, for I had been in fear of this very thing practically all the time I was in Kirin province. That night, in going back home, I was however not molested. As soon as I reached home, *i. e.* the Chinese inn in which I had been staying, I wrote a letter to the officer in charge of the camp of regular soldiers at Omuh sien, informing him of the situation, and requesting a guard for protection. No answer came. Ten days later I wrote (in direct) to the Tuchun in Kirin.

Before going any further with this story let me state who this officer of the camp at Omuh sien is and why I applied to him and not to a Mr. Han who is the civil magistrate at Omuh sien for protection. Two years ago Meng Tuchun sent a body of soldiers to the mountains around Ichisung to apprehend a

desperado called Wong and his two hundred followers who terrorized all living in that district. They succeeded in rounding up the gang. Wong stipulated that he would surrender only on condition that he and his followers be given a camp at Omuh sien and that he be appointed the captain in charge. His condition was approved by the Tuchun; he together with his men then entered the government service and has since become the make-believe guardian of the place. My reason for applying to him and not to the Hsien official was that his men are the terror of the whole place. Besides, there was some bad blood between his braves and the police under Mr. Han.

Another incident to give a side light. Captain Wong, about a month prior to the date of the attack on me, called at the inn in which we had been living. Walked right ahead into my room, all the time ignoring my people and myself, and finally condescended to talk to me. As my midday meal was ready I invited him to share it with me. He did so. After the meal he remarked that I had been living very economically, which, as you know, meant that I treated him poorly. After a number of other ugly remarks, and questions regarding what arms I had, he stalked out again with his soldiers at his heels, and did not condescend at the outer door to turn around to acknowledge my farewell. Such is the officer to whom I was compelled to apply for protection and justice in the land of these enemies of the human race over 100 miles away from my friends.

Still another incident I shall have to impose upon you before you can see the setting of the whole situation. More than a year ago, just after the first batch of refugees from Weanshien had arrived, an officer with twenty odd men came into the inn at Wochikou in which I was at that time living. These braves took a good

solidmeal and washed it down with strong wine. Of course they paid nothing for what they ate and drank. The officer however returned this courtesy by reviling the landlord. I feared they would get into a scrap and went over, trying to pacify the officer. I told him that I had been there for a month and found Mr. Li a nice fellow. No sooner had I begun to talk than the officer jumped up and commenced scolding me for interfering in what was not my business, and questioned why I, a foreigner, should have dared to meddle. I said again that Li was my good friend and that I couldn't but stand by him. He asked me what business anyway had I there. I tried to tell him how I had come to help the poor, a number of whom were standing around, to break land. I thought my object of taking his attention away from the trouble with the landlord had been accomplished when a member of the Wenan gentry came up to my side and suggested (very unwisely indeed) that we report the whole matter to the Tuchun. I do not remember whether I assented, for no sooner had my friend passed this remark than the officer in a frenzy drew his pistol from his belt, thrust it into my face and ordered all of his men to kill me. Click! Click! went all those old rifles and I was covered by them all, most of whom were now swearing at both the landlord and me. Finally an old gentleman got in between the rifle muzzles and me, and the scene soon ended, but not before a paper was drawn up imposing the death penalty on me if I should report the matter to the official. Two "Wei yuans" from the Omuh sien magistrate who were engaged in delimiting our land were also compelled to sign this paper. I never reported it nor did those two officials "officially" report it. This occurred about a year ago. Though I had met my committee since then, I never related this incident because I knew that if I did they would not have permitted me to go back last winter.

Other incidents could be quoted to show how it was a constant strain on all of us and especially on myself to hear of soldiers passing our place. They frequently compelled our people to take three of the six horses out of the plow to help commandeer a cart from another party. I had to run after them and get our horses back. Sometimes they would take hold of our men either at work or going to their work and force them to accompany them and carry their burdens. The unpleasant task of releasing our men naturally fell upon me. On one occasion a petty officer drove up to our straw stack and began filling his cart with our straw when straw was selling for 8 *tiao* a bundle, *i. e.* about 7 little sheaves for a dollar. I had to tell him that I couldn't afford it. He and his men were sullen when they were obliged to unload the straw. At one time when I was insisting on getting it back for our own cattle, he tried to level his rifle on me. With these and a number of other incidents of like character related, you can see how I was living on tenterhooks the whole time I stayed there. Now I shall return and relate how I was beaten and robbed.

The 26th of June was a very stormy day. For some reason I had returned from what I had been doing earlier than usual, finished my midday meal and had the table cleared before noon. I had just sat down to write some letter or tie up some package to mail when my door behind me was violently driven open by a blow from a rifle. I looked around and found six guns levelled at me by a band of men in the uniform of regular soldiers with belts full of cartridges. It had not been long before I was up, facing them and pushing aside the muzzles with my hands while all the time I was expostulating with them and asking what they wanted. I was all the more puzzled when I recognized the faces of at least three of them.

During this time some had begun beating me with the butts of their rifles and others thrust the muzzles of their rifles against my face and shoulders and abdomen. I was kept busy parrying the blows of the rifle butts with my arms, and catching the muzzles and diverting the thrusts with my hands. I was all the worse handicapped as I did not want to enrage any of them by seeming to make any aggression, the first sign of which I was aware would have been followed by the pulling of one or more triggers. They beat me out of my inner room into the servants' quarters and from there into the general kitchen. Here I received very heavy blows from the rifle butts, as the soldiers had more room to use them. I caught most of them on my right arm until it was broken.

By this time I had reached the door leading into the eastern room of the building where I knew there were about ten men who were helping the landlord in hoeing the seeds. I turned around and appealed to those whom I considered my friends and explained my innocence of having done the soldiers or their officers any injury. When I thus turned around, four of the soldiers thrust the muzzles of their rifles into my back and loins, breaking one of my ribs. I then believed that I was a dead man for I reasoned in this way; once they got me down they would finish me. So with all my might I turned around again and began defending myself. The sight I saw when I entered that room is one that I can never forget and one that I am sorry to say represents China before her militaristic oppressors.

All these ten or eleven helpers of the landlord were lying flat on the *k'ang* with their hands over their eyes lest my attackers should think some one of them might later identify them. This sight in a twinkling made my heart sink still lower as I realized that no help could come from that quarter. At this movement, in answer to my constant appeal as to what the soldiers want-

ed, the little girl who is the betrothed of the landlord's son shouted out "*chien*." Then I realized that money was wanted. I must confess it had never dawned on me before, for these were men most of whom I knew. Some of them had been my guards. I at once shouted out: "If you want money it is all in my trunk in the inner room." For the first time the beating ceased and all the rifles were levelled on me. With difficulty I extracted the keys from my pocket. "Open the trunk," was the shout. All the time I was thrusting my hand into my right pocket while the key was in my left pocket. I had lost my sense. As soon as I opened the trunk, the shout "throw the money on the *k'ang*" came from all, while the rifles were pointed at me. I was very glad indeed to throw out all the money. More! more! was the cry. I said I had not any more. Give up your six-shooter! "I have no firearms," was my reply. Under the cover of rifles I was then led by three soldiers to the second room while the others rifled my trunk. Among other things they took away was the 5th Order of Chiao Ho Decoration which was given me for colonization work when I was in Peking last, and some clothing, etc. Anyway I had not much to lose. They did not take my big overcoat because it smelt of moth balls and thought it might bring them bad luck. Finally I was ordered to give up my watch, which I did. They then wanted me to open the trunks of the cook. I told them I did not know whether he had money or not. As an alternative, they took me back to my inner room and commanded me to open another trunk. I said it contained only old clothes. As I saw further violence coming I hastened to open it, I had to use both hands to throw the contents out on my bed. "Open the next!" was the shout.

Hereupon one of them who had been there often as a soldier's guard said I was right, that these other trunks contained things valueless. Following this, the shout was raised while the

rifles were still levelled on me, "not to report to the officials!" I responded more than a dozen times that I would not. One of them then said they might take their rifles down and I would not report as I had not reported the last time. At once I recognized this man as one of the party that "covered" me at Wochikou a year ago. Even in the midst of the confusion I had time to reason that it was all a matter with the soldiers and that my silence regarding the former incident now saved my life. No sooner had this man said this than the rifles went down and the men who only a second or two previously had me covered had the meanness to pretend a sort of sympathy with me. More than one said "we didn't want your life," but still kept urging that I must not tell. A dirty old rope was found on the back of my chair. It was either to bind me for carrying me off or for some other evil purpose. They left it behind them. I could not believe my senses that they were going. When they got out of the house a whistle blew and another in response, and they suddenly went away. I simply fell back into my chair. At this time my right arm pained so much that my back did not seem to give pain. But with all the pain I felt I had got off easy.

As I simply could not sit up I went to bed and gradually my friends came in to express their sympathy. Among others, the Peking carpenter who was building my house. Luckily the last time I had been in Shanghai I brought with me a rattan chair. So I asked the carpenter if he could rig it up with a pair of poles. He did so, and the next morning I was able to start for Kirin carried by fourmen.

Shortly before we started, one of Captain Wong's subordinates arrived with ten soldiers. He had come to investigate. They had no idea of following the "hutze" I told the officer that

they were not "hutze" but "Lu Chun" (soldiers). He held to his denial till I told him I knew some of them. Oh! yes, he said, you likely recognized that pockmarked fellow Yu who had been one of your guards. I told him I recognized more than one. At first he was unwilling to send a guard with me across the mountain to the next camp, but when he saw the Tuchun's passport which I had not lost, he sent eight soldiers to accompany our party to the next camp. On the 2nd of July Dr. Grey examined me and found among other things a broken rib.

I am only one of the many victims of that gang of thugs. Some poor people were even worse beaten than I was at other places that same day. They have no redress. I have if I want it. I want to continue to represent them. At present they are voiceless, and helpless. About a week before I was beaten, the brother of a Mr. Hu, for instance, came to my room. I asked him where he had been as he evidently had been on a journey with his horses and carts. He said he had just returned from carrying an official over the mountain. The said official, a young man from the South, had sent two of his soldiers to Hu's place, and ordered the man to hitch up. He did so. Hu spent three days through the very worst of roads and had received as payment one meal and eighteen *tiao* (one Mexican dollar sells for 60 *tiao*). My blood boiled. But he replied, "The official did not beat me," and smiled in resignation. Is this not enough to make any man weep? Is it not enough to make any persons who call themselves free men to rise and kill or do anything to shake off the shackles of their brethren? Surely, if the condition of thousands of these people were only made known to patriotic Chinese, they would no longer live at ease. My ease is a small matter. All I have related could be multiplied by thousands and tens of thousands.



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THE FOLLOWING IS NOT PART OF THE SCHEME
EXCEPT AS AN ILLUSTRATION.

The living wage or a standard of living.

Our Bureau will investigate condition of living in Peking and decide from year to year what income a family should have in order that the members can be properly fed clothed housed and educated. That will be made the **Standard wage** we shall try to bring up the wage in each industry to this standard just as fast as that industry will bear it. By industry here is meant the experiment in industry that we shall attempt to carry on. We shall try to establish the same high standard of wages in all of our Model Experiments.

Take for example the industry of tanning

1st. The hiring of men.

We shall select the very best men that we can find. The men and their families must pass a medical examination and only healthy and efficient workers will be hired. After hired and testing for a few months, however, we will make ourselves responsible for their health. We shall erect sanitary dwellings.

2nd. Wage

We shall begin the men on the highest wage paid in tanning and work them only the eight hour day.

3rd. All the profits will be divided among the workers till we raise the wage to this standard.

By profits is meant all that is left after interest on capital invested and running expenses depreciation in machinery, insurance wages and price of raw material are deducted from price of finished product.

In conducting the tannery we shall use the most up-to-date methods and machinery. The prices that we shall reckon on raw material and finished product will be those current in the district.

By "raw material" we mean the hides coming in and by "finished product" we mean the leather ready for shoes, saddles, etc.

A suggested method of raising the wages will be in the inverse ratio to their wages or in the direct ratio of the difference between the present wage and the standard wage. Suppose A's wage is \$9 B's \$12 and C's \$15 per month and that \$21 is to be standard for the time. The difference between the wages and the standard are \$12, \$9, and \$5 respectively so that if there was money enough available to increase the total wage of these three men by \$9 per month division would be to A \$4 to B \$3 to C \$2 making the new wages \$13 \$15 and \$17 respectively per month.

There would be certain rules concerning dismissal or punishment of drinkers, smokers, gamblers, morphia fiends, child marriage, footbinding and anything that tends to lower the efficiency of the family. Also advancement offered to those who take advantage of all the educational facilities afforded.

The matter of weeding out undesirables cannot be brought under a rule excepting that the judgment of their fellow workmen ought to be considered in making decisions.

No wages are allowed to rise higher than the standard.

After the wages have reached the standard the profits can be applied to helping to raise the wages of a sweated industry which is also being experimented on. The profits accruing to each man on each job of the original work will be kept account of and a list published at regular intervals, giving how much the work of each man is contributing monthly to raise his fellow workers in the other industry. After workers have assisted another industry a specified amount they will be reduced to a six hour day at standard wages, on condition that they can use the spare time wisely in self-improvement.

The erection of these experimental plants for different industries together with houses for the families of the workers will require a large area. For this reason a large tract of land of say 10 square miles with a stream running through it ought to be selected and a model city planned and laid out. By doing this we would not be called on to expend large sums for real estate as a burden on each new industry that we start. The main expense would be in the plant and not in the ground on which the plant is built.

If College students desire to work their way by working in any industry there will be no discrimination made in their favor, but wages shall be paid according to amount and quality of work done just as in the case of workmen.

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Bureau of Experiment & Service.

Jan. 31, 1930

It is not my task to defend ~~the~~
Christian Missions - I would not
be called upon to defend Christian
industrial missions were
it not that so many Christians
have missed the significance
of Bethlehem and The Carpenter
Shop of Nazareth. Bethlehem
and Nazareth's carpenter shop
were not accidental incidents
in the pilgrimage of the Lord
of Life. They are both fundamental
exemplifications of the teachings
~~of~~ our Lord's code of life.
When one has known the
shocking incongruity of
trying to teach Christ's code
of "brotherhood of man," "Father
hood of God," - & "the unsearchable
riches of Christ" & "life more
abundant" to men who are
hungry and naked and cold

0041

~~without~~ with Bethlehem and
Nazareth's carpenter shop cut out
of the picture & one learns that
the birth place and work shop
of our Lord are the back
ground of all he taught and
revealed, and only in relation
to this background ~~does~~ ^{can}
the sermon on the mount
& Calvary be rightly
interpreted.

not His direct teaching words
but His spirit breathing thro'
this background of His life
has abolished slavery
and wrought other miracles
in human relationship.

In the Bureau of Experiment
& Service we propose in Yenching
^{University} to try out the best methods and
means of livelihood in the
East & West and help the
Chinese to utilize them in their

daily life, that they may have
"Life more abundant."

We are teaching ~~and~~ and
they, are greatly learning
to properly tan their leathers
and furs. We want to
expand this enetial effort
in experiment & service
into the field of agriculture
& textile art, & pottery.

If you smile at the thought
of helping to bring the art
of china ware to China
do so with thanks to Him
who taught you from His
Carpenter shop.

We want to help the Chinese
to find a way to spin their
cotton thread without the
slavery of the old spinning
wheel or the degregation of
massed sweat shop cotton mills.

2. We want to teach them to make paper - corn stalk paper out of kowling stocks.

We want to help them make better implement for agriculture to introduce into North China a windmills - Home made wind mills that will aid them to irrigate from their shallow wells.

We want to learn & to teach them how to pluff the pith of kowling for wadding ^{for} winter clothing.

And as we explore these fields we believe that we will find here & there other sources of abundant life ^{that} can be freed for the use of living men.

To this problem we propose to bring the resources of the research laboratories of the Genching University. The

Departments of sociology,
Chemistry, Physics, ~~and~~
Biology, and Agriculture
are not only willing but
eager to be used by
the Bureau of experiment
& service to make their
findings & learning bare
concrete fruit.

We will work primarily
through the churches in the
rural districts but where
our work extends beyond
the churches in the agricultural
districts or in helping the
manufacturer with his
research problems you need
not fear. This work comes
from the Christ of the Carpenter
shop and from no other origin
in this world and it shall
& will always have His stamp
upon it.

Bureau of E.P.
x to Roche

March 6, 1930

Dear Doctor Day:

I send you herewith a statement in regard to the Yenching Bureau of Economic Experiment and Service. At the time when we made application through you to the Laura Spelman Rockefeller Memorial for a grant for the division of the social sciences in Yenching, we did not realize the possibility of having a person with Dr. Vincent's unusual qualifications to take hold immediately of this form of practical economic education. We are, in the division of the social sciences, emphasizing research. We have not been able to emphasize anything so practical as the work we should like to see done by Doctor Vincent. If a grant can be obtained for his return to China and a five year period of expansion in his work, we shall see that the departments of Economics, Politics, and Sociology are all brought into the closest relationship with this technical aspect of economic improvement as they already are with such work as Professor Taylor's in the development of farm cooperatives and other practical improvements in village and farm life.

If the Foundation will make a grant of \$60,000, we are confident that we can secure \$82,000 otherwise. Plans are under way for obtaining this money from individuals especially interested in Doctor Vincent's work. The enclosed printed sheet was prepared for use with these potential individual contributors.

If further information is required, please give me an opportunity to answer your questions.

Cordially yours,

Dr. Edmund E. Day
Rockefeller Foundation
61 Broadway
New York, N.Y.

Assistant to the President

ODW*KK

0046

*This is our file copy - in
Bureau of Econ. & Service
3-6-30 -*

BUREAU OF ECONOMIC EXPERIMENT AND SERVICE
of
YENCHING UNIVERSITY

*2 more copies
in Inf. Yenching
file.
rough draft sent HSY
10/4 to B.M.
Hedrick
3-12-30*

The ancient Chinese system of education, now practically out of existence, consisted of a prolonged intellectual and ethical cultivation intended to make the student an ideal gentleman. It was based exclusively upon the Confucian classics, and, therefore, pre-eminently literary and bookish in character. Nowhere in this system was there any concrete or practical element.

A system of education modeled upon Western ideas is steadily supplanting the indigenous Chinese system. Modern education, however, has tended largely to perpetuate certain defects of the old system. Those Chinese students who have studied abroad frequently return to their homeland with a vast array of theoretical knowledge, but without any practical experience. In many cases they fail completely to adjust themselves to the actual conditions in their homeland. They tend to enter political and governmental life through the force of a very ancient and persistent tradition and because they do not know where to take hold anywhere else.

Most of all, are both the ancient and the modern education in China defective in their failure to penetrate down to the masses of the people in not benefitting directly through the institutions of education.

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The teaching of economic, political, and social subjects in a theoretical fashion, largely by means of text-books produced in an occidental country, might continue indefinitely without any result apparent in the conditions of living for 90% of the Chinese population. The effect of such teaching is, in considerable measure, simply to widen the gulf between the educated man and the unprivileged classes to whom his education should be of some immediate value. Educated young men and young women in China must learn to do things with their hands.

Both for the sake of the masses of China, and also for the sake of the young men and young women receiving education, it is imperative that this gross defect be remedied. Some advantage will be gained through the introduction into the elementary and middle schools, and even the colleges, of courses requiring some form of manual work. Such an innovation, however, will in itself prove to be another form of abstraction unless the kind of manual training given has some direct relationship to the conditions prevailing in the environment of the institution. In a country so poverty stricken as China, manual training for purely disciplinary educative effect is a luxury not very different from purely theoretical intellectual training.

College graduates in China must be made to understand the daily life of the masses around them. They must be trained to do something to improve this daily life.

Yenching University has been seeking for means to this end. It has experimented with a single unit of industrial education--the curing and tanning of hides and furs and the manufacture of leather goods. The marked success of this first experiment leads the University to believe that the same method applied to various other small-scale undertakings will ultimately benefit the whole of North China, and will affect in a wholesome manner the life of the University itself.

For the first experiment, the University secured the services of Doctor H. S. Vincent, who had already done an unusual work in the same field in Siam. The economic benefit of the introduction of modern methods of treating hides and the training of students in these methods has been so marked that Doctor Vincent has been decorated by the King of Siam for his services to his country.

Doctor Vincent introduced courses in the treatment of leather and furs in Yenching, trained a considerable number of students to a high degree of proficiency, selected and trained a Chinese to the point where he could take direction of this department of the University's practical work, and then returned to America.

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So well grounded was the work he had done at Yenching that the department he developed has not only continued satisfactorily under its Chinese head, but has expanded its work. Repugnance to hand work, even of such a character as that required in the treatment of hides and furs, has largely been overcome. This department of the University has proven to be an entering wedge for modifying the Chinese conception of education. It is serving in this regard along with the system of student self-help now well instituted at Yenching, through which students are encouraged to meet as far as possible their own expenses with money earned in all sorts of manual as well as mental labor.

The practical benefit of Doctor Vincent's work upon the people themselves is also marked. Whereas in many similar instances, graduates, who have not had such practical training, often enter wholly unrelated occupations after leaving the University, this has not been the case with the students who have had this training at Yenching. In almost all instances they have gone out actually to open their own small-scale business in the treatment of hides and furs. Thirty or forty such small establishments have already been set up and are succeeding in a practical fashion in the hands of Yenching graduates. Doctor Vincent has laid the greatest emphasis upon common sense. Instead of encouraging the rapid introduction of labor-saving machinery, he has done the opposite.

To combat the inevitable tendency of the Oriental who has only recently become aware of the value of labor-saving machinery, he has urged small-scale beginnings--even if the tannery must first consist only of a few tubs of the necessary materials and the hands of the owner--and the very gradual development out of capital earned. Even in the department at Yenching, Doctor Vincent discouraged any needless machinery, seeking to train the students with such equipment as they might hope later to introduce into their own plants.

The success of this experiment has been so marked that the University no longer considers it an experiment, but a satisfactory demonstration. It is eager now to apply the same methods to a sufficient variety of the elements constituting the industrial life of North China to produce commensurate results both in the life of the University and also in the economic condition of the people of North China. It wishes to establish a Bureau of Economic Experiment and Service whose work will be to investigate economic and social conditions, discover their most serious defects, and seek out and apply the most practical remedies. Emphasis in this work of the Bureau will be laid upon the technical aspect of these problems, but it will work in close conjunction with the departments of Sociology, Economics, and Politics, since the University intends to give a practical application in every possible way to the work of all these departments.

It is believed that the Bureau of Experiment and Service will, in the course of its researches and experimentation, find new sources of income for the farmer and the village worker, discover new uses for waste material, improve transportation and methods of marketing, and indirectly safe-guard the health of the depressed farm and village classes of North China. Eighty-five per cent of the population of China live from the farm. Great changes in the level of life of the farming classes may be expected as the ultimate outcome from practical as well as scientific studies seeking to improve the spinning of cotton thread, better the textiles produced from hand looms, improve the pottery, discover methods for making paper out of the fiber of the kao liang, improve agricultural implements, develop simple forms of windmills to end the slavery of the treadmill method of irrigation, teach ways of fluffing the pith of the kao liang to serve as quilting for winter clothing.

Indirectly, this method of studying existing industrial elements in North China and of the improvement of methods and implements may be expected to affect the direction of development in the whole economic transition now taking place in China. Such modification and improvement of existing practices may help to avoid the sudden revolution from a patriarchal condition to the modern American factory life.

If the successful demonstration already made is to be expanded, funds should be supplied to cover a period of five years. A moderate amount of additional plant and equipment is also required. The following statement covers the needs:

THE CAPITAL EXPENDITURE PROPOSED IS:

Enlargement of leather laboratory	\$10,000	
Other experimental laboratories	15,000	
One residence	7,000	\$52,000

ESTIMATED ANNUAL EXPENDITURE:

Two co-managers - salary	3,000	
Residence rental	600	
Three field assistants	1,800	
Three clerks	900	
Travel--exploration and survey	2,000	
Office expense	1,200	
Contingent expense	2,500	
	<u>\$12,000</u>	
For five years		<u>60,000</u>
Total required		\$ 92,000

Yenching University earnestly hopes that these funds may be secured in the very near future since Doctor Vincent is prepared to return to China for an additional five years of work in expanding what he has already so well begun.

For the Trustees

Assistant to the President

*make 2 copies for
H.S. Vincent
3-11-30*

THE ROCKEFELLER FOUNDATION
61 BROADWAY, NEW YORK

THE SOCIAL SCIENCES
EDMUND E. DAY, DIRECTOR

CABLE ADDRESS:
ROCKFOUND, NEW YORK

March 10, 1930

My dear Mr. Wanamaker:

Your letter of March 6th presenting a request for a grant of \$60,000 towards the support of the Bureau of Economic Experiment and Service of Yenching University has just come to my attention. The accompanying statement regarding the plans for the bureau seems to me thoroughly effective and most interesting. I can readily see why the University wishes to advance the sort of work which has already been started under Dr. Vincent's direction. At the same time, it seems to me clear that the proposed work of the bureau lies rather definitely outside the present field of the Foundation's interest. Under these circumstances, I do not think anything would be gained by bringing the application to the attention of our trustees for official consideration.

I am sorry to make this discouraging reply and trust that the University will find other means of securing the necessary funds.

Sincerely yours,

Edmund E. Day

Mr. Olin D. Wanamaker,
Yenching University,
150 Fifth Avenue,
New York, N. Y.

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INTERNATIONAL
LABOR OFFICE AND COMMITTEE
OF EXPERTS
**NORTH CHINA INDUSTRIAL
SERVICE UNION**

PEIPING, CHINA.

FEBRUARY, 1933

**THE CHIH LI PRESS, INC
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LIST OF OFFICERS AND COMMITTEES

1932-33

Officers:

Chairman: Dr. Chang Po-ling

Vice-chairman: Dr. J. Leighton Stuart
Dr. W. H. Wong

Treasurers: Mr. P. H. Stephen Tsai
Rev. J. A. Hunter

Secretary: Dr. Chen Ta

Executive-Secretary: Professor J. B. Tayler

Committees:

Executive Committee:

The Officers, Dr. Franklin L. Ho, Dean Gideon Chen

Committee on Textile and Other Industries:

Chairman: Mr. S. M. Dean

Committee on Mineral Industries:

Chairman: Dr. W. H. Wong

Committee on Economic Research and Industrial Organization:

Chairman: Dr. Franklin L. Ho

Finance Committee: Dr. Y. T. Tsur, Dr. Chang Po-ling and
Mr. Sohtsu King

NORTH CHINA INDUSTRIAL SERVICE UNION

Several strands of interest have united to find expression in this new association. Some of the chief of these are: the growing concern with rural problems and the belief that industry must be taken into the country; the conviction that education in China requires adaptation to fit it more closely to the needs of the people in an era of fundamental social and economic change; the increasing consensus of opinion amongst economists that in the "Oriental Industrial Revolution" a prominent part will be played by decentralised industry, for which recent technical developments have paved the way; and, finally, that such industry, efficiently organised on associative and co-operative lines, will have important social values and make significant contributions to national reconstruction. It is worth while to look for a moment at the bases and implications of these beliefs.

In North China, the smallness of the farms and the nature of the farming,—the raising of field crops,—combine with the long hard winter to make agriculture a part-time industry. The farming community, except where subsidiary industries exist, has five or even six months of idle time. Also, the climate, with its uncertain and ill-distributed rainfall, renders agriculture an insecure livelihood. These two facts are perhaps outstanding in setting the conditions for industrial development. They give an immense vitality to such rural industries as now exist, despite the lack of scientific services and industrial organisation in country districts. Moreover, the density of rural population offers unique opportunity for the organised development of decentralised industry. On the fertile plains, within a radius of five miles of a marketing centre, there is frequently a population of thirty thousand people,—enough for an important localised industry.

For modern development there must be provision for research, not only into the resources and products of the region, but into the best equipment for village use. The principle adopted by the Union is to begin from where the people are and introduce improve-

ments by successive steps. At first new equipment must involve only a modest outlay; but there should be progressive substitution of better forms as skill, capital resources, capacity for co-operative action, and the demands of the market increase. To provide this technical advance the help of engineers in research and training centres is being enlisted, and steps are being taken that the fruits of their invention are made available throughout the area by suitable methods of training and demonstration.

As to training, the educationalist will not let us forget that it must not be of a narrowly technical type. The need is to create a new alertness, a wider outlook, a greater spirit of association, and amongst other things, a new artistic impulse; in other words, to find means of doing for China what the Folk High Schools have done for Denmark.

Further, rural industry must be an organised movement, protecting the home worker from the exploitation which is otherwise his bane, and the small workshop from the stagnation of isolation. Fortunately, there are many examples in the co-operative societies, the handicraft and trade associations, and the peasants' unions of Europe and in some nearer at hand in Japan, showing how this may be done. The hope of the Union is to organise local groups of producers and to federate these; as may in each case be desirable, for common interests in such fields as credit, supply (including at a later stage power) and marketing; as well as for securing trade information, designs and so forth.

The advantages of this policy are many. On the economic side the dovetailing with agriculture converts the farm income from a year's return into one for six or seven months' work; it raises the purchasing power of the great mass of the people; and it makes it possible to foster those trades and utilities which will make the most direct contribution to raising the standards of living of the peasantry; while the workers' lower costs of living in the village, as against the city, increase their real income. Socially these forms of organisation fit into the texture of Chinese society and secure modernisation with the minimum of disturbance to the institutions of the country. The combination of independent or small group production with membership of larger associations of democratic

character gives such production a high social value. From a national viewpoint, it can be initiated under a lower degree of political stabilisation than is required for more centralised types of industry and it enjoys the great advantage of being itself a stabilising factor, tending to remove the causes making for banditry and 'communism'. If successful, it will do much to prepare the way for new forms of local administration on a representative basis, which are essential if democratic institutions are to succeed in China.

It was to bring together those who might take a share in this joint enterprise that the Union was formed. To shape a policy and mould a movement that can be adapted to the manifold conditions that will be met with will require planning and administration of a high order; to create the energy by which alone its plans can be carried into effect will call for much enthusiasm. The Union appeals for the interest and assistance of all who value its purpose.

Formation of the Union.

The Inaugural Meeting for the founding of the Union was held on the 17th, September 1932, at the call of Dr. Chang Po-ling and Dr. J. Leighton Stuart. Their action was taken in harmony with the desire of the National Christian Council to see a North China group promote the policy just outlined, in which they placed much hope. It was realised that success would depend upon the co-ordinated activity, as has been suggested, of educators and economists, scientists and engineers, and even of artists, though these were not represented at the first meeting. How far these groups were brought together may be gathered from the personnel of the meeting:—

Dr. Chang Po-ling, President, Nankai University
Dr. J. Leighton Stuart, President, Yenching University
Dr. W. H. Wong, Director, National Geological Survey
Dr. Y. T. Tsur, China International Famine Relief Commission
Dr. Franklin L. Ho, Director, Institute of Economics, Nankai
Dean Gideon Chen, College of Public Affairs, Yenching
Dean Gene L. Chiao, Oberlin-in-Shansi
Mr. S. M. Dean, North China School of Engineering Practice
Mr. Liu Chao-an, North China School of Engineering Practice
Rev. J. A. Hunter, Chairman, North China Christian Rural Service Union

Professor A. L. Carson, Director, Rural Institute, Cheeloo University

Professor E. O. Wilson, Department of Chemistry, Yenching

Professor J. B. Tayler, Department of Economics, Yenching

Functions and Activities of the Union.

The first function that the Union will perform in endeavouring to carry out its policy is that of a co-ordinating centre. Through its means experience can be pooled and interest focussed. To serve this purpose it receives into membership all who have an interest in its aims, on the vote of the Executive Committee. Thus the efforts of individuals and of the institutions they are connected with may be encouraged in pursuance of a common program.

Sometimes, indeed, an institution is requested to undertake a special responsibility and then the Union may be called to assist in financing the enterprise. This is a second, and it may prove to be a very important, function.

Thirdly, the Union itself undertakes tasks for which it is better fitted than other agencies, and maintains its own executive staff. The chief field here is the organising of industries and serving them in business ways until the organisations so created are strong enough to function without such aid.

A brief statement of present activities and of plans for the current year will illustrate these different phases of the Union's work.

1. Among activities which are being carried on by various institutions as part of the co-ordinated plan may be listed:

- i. The preparation, by the National Geological Survey, of a report on the quantities and qualities of several economic minerals which can readily be mined by the local people if the means can be found of bridging the gulf between them and the market which exists, or can be created, in some large city.
- ii. The study of the textile industry in Kaoyang—a truly remarkable example of a decentralised industry—by the Institute of Economics at Nankai. The study will provide a much more careful comparison than has yet been possible between the relative merits of city and rural industry.

iii. Advice from the Department of Chemistry at Yenching in regard to the dyeing of wool; and advice to schools in the interior from the same department as to the possibilities and costs of vocational training in the tanning and working of leather.

2. In other cases the Union has gone further and financed certain inquiries. This is true of the preliminary studies of village smelting of iron in Shansi, for the improvement of which an expert has been secured to start work in the spring. An assistant of Dr. E. T. Nystrom's was engaged to map the iron ore in the region in which it is planned to make this experiment, while analyses of ore, and a preliminary test on the use of a flux, were arranged for with Yenching.

The Wool Project. But the main enterprise of the Union during these first few months has been the work of the Wool Research and Training Centre, which has been carried on for it by the North China School of Engineering Practice. This work was started with an initial grant of \$3,000 Mex. from the National Christian Council in June 1932. Wool is one of the leading products of North China and though there is a growing demand for woollen goods in many parts of China, the weaving and knitting of wool have never been indigenous industries in the villages. European experience would indicate that wool weaving is one of the best industries for the home and village. Accordingly Mr. Dean and his associates were asked, as a first step, to experiment with processes and equipment adapted to village employment. It was essential that during the first stage in the development of this industry the equipment should be of the simplest and least expensive character, but that means should be forthcoming of substituting better and more productive appliances as opportunity arose in accordance with the principle of gradualness as outlined on page one. We cannot do better than quote Mr. Dean's own account of the progress of the Centre:

"This report is written in November, less than six months after funds became available. No one knew what processes were best or what equipment was needed. Everyone was sure it would have to be very simple and cheap and capable of manufacture in a village carpenter's or smithy, or else the

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villagers could not copy or buy it. The engineering staff knew nothing about the hand processes and had to learn them as would the merest beginner. Where could these processes be learnt? Those which existed in China produced inferior goods. One had to start with these inferior processes and, step by step, modify the equipment and methods through careful research, until one came to something satisfactory. The staff had a shop considered modern in Peking.....it would be easy but not right to manufacture the equipment needed in that shop, for the small towns in the interior have no such foundries, lathes and planers. Therefore a small crude blacksmith's shop and a carpenter's shop were equipt like a village shop and the equipment made and experimented with was manufactured under these conditions.

"By October 1st. it was found possible to manufacture equipment under these conditions, usable in the villages, buyable with small capital and producing good woollen cloth. At the same time the various localities interested were allowed to send in young men and women to be trained as district leaders who should go back to teach the trade to their people. The courses were arranged, according to the number of processes included, to occupy from three to seven months. The widespread interest aroused is seen from the list of localities represented in the first group to be trained:

Tsinchow, Shansi, one man and one woman
Changli, Hopei, one woman
Tinghsien, Hopei, (Mass Education Movement), one man
School of Engineering Practice, Peiping, three men
Chingho Social Centre, (Yenching), Hopei, two men
Fenchow, Shansi, two men
Yenching University Student Group, Hopei, one man
Deaf and Dumb School, Peiping, one man
University of Nanking, Kiangsu, one man

On the waiting list there are people from Suiyuan, Szechuen, Shensi, Shantung, Shansi, Hopei and Kiangsu provinces.

"We have been greatly encouraged by the fact that Mr. Li Lien-shan, brother-in-law of General Feng Yü-hsiang, has been

willing to co-operate with us. Mr. Li has just returned from spending several years in learning the wool trade in England and Germany, bringing back with him a small but complete wool mill of European manufacture. He is a man who wishes to help China and believes in the work we are attempting, so he joined up with us for two years of joint work. We were thus able to get his part time assistance as a textile engineer for our whole project and, for the two years' time, to give the district leaders an acquaintance with his modern equipment as well as a training upon the simpler apparatus. Thus those trained go out combining a knowledge of the immediately practicable with a conception of possible future progress."

Much knowledge has been gained as to the appliances which give the best results with Chinese wool and with merino, respectively. A range of carding appliances, from the simplest hand cards through stock and treadle cards to a metal carding machine, have been made, and hand mules, based on the Welsh type but modified by experiment, are being successfully used by Mr. Li in preference to his European machine. Other problems remain, but the situation is well enough in hand, as far as wool is concerned, to justify an effort to adapt the equipment to cotton.

An equipment sufficient for eight families or twenty people can be produced at the Centre for \$160 Mex. A better equipment, providing occupation for fifty persons, with a production of twenty to forty pounds a day according to the fineness of the yarn spun, can be supplied at \$560 Mex. Third and fourth stages have been worked out and available when they may be required. The expense in these cases runs into several thousands of dollars.

This Wool Centre has been described in some detail since it offers a concrete illustration of how the principles enunciated on the first two pages can be worked out in practice. The Union is seen actually applying scientific invention to the improvement (or rather here the establishment) of a rural industry, on a basis which permits of progressive development.

The Organisation of Local Industry. In order to test the readiness of farmers to respond to calls for organisation on co-operative

and associative lines, an experiment in the collective marketing of Hsiho cotton was undertaken in October and November.

A favourable situation was chosen in Shentse, Hopei, where for some years there had been a union of co-operative societies affiliated to the China International Famine Relief Commission. It has been customary for the farmers and dealers to water the cotton after ginning and to throw in little bunches of seed, to increase the weight, while they have made no effort to remove stained or defective fibre. Consequently all the cotton has to be sorted in the godowns and mills in Tientsin. An effort was made on this occasion to teach the co-operating farmers the importance of standards and to induce them to sort the seed cotton and supervise the ginning and baling, so as to cut out the practices referred to. Some farmers responded nobly; others required constant supervision; but the experiment was successful in putting cotton on the Tientsin market in better condition than had previously been known. Moreover the farmers, although accustomed to selling their cotton to dealers on the spot for cash, were sufficiently interested to allow their produce to be shipped without any advance payment, and trustful enough to do so before the cotton was sold and with no guarantee as to price. Fortunately their confidence was rewarded by a gain of nine or ten per cent. The real test, however, lay in the possibility of securing quality and in the ability to co-operate; in both respects the results were most encouraging.

Mr. Lu Kuang-mien, who handled the experiment, has since been engaged as assistant secretary and by the courtesy of Mr. Dean an office has been opened at the Wool Centre, 50 Kulouhsi, Peiping. Mr. Lu's duties will include maintaining knowledge of, and touch with, the markets so as to enable him to put the producing groups in touch with demand and, when necessary, to organise supply and marketing channels for them.

The Present Year.

During the year 1933 our plan is to develop the wool work, devoting attention to the design of a simple condenser, or alternative means of achieving the condenser's purpose; to the study of wool supplies and of the demand for woollen goods in North China; and to the organisation of the local production centres. At the same

time a beginning will be made with experimentation on cotton equipment on lines parallel to those followed for wool. This study will include the possibility of devising an equipment which, with the least modification, can be adapted at one time to woollen goods, at another to cotton. A number of inquiries have been received as to this possibility. An item of \$7,705 Mex. has been budgeted for this textile work.

A metallurgical expert is expected to arrive in the middle of April to attempt the improvement of the village smelting of iron in Shansi. The extraordinary situation exists that although there are enormous losses of iron in the fourfold process by which the village smelter obtains malleable metal, he is still able to sell his product at a price which corresponds closely to the operating costs (exclusive of overhead) of producing pig iron at the blast furnace at Yangchuan which uses the same ore. The hope is to enable the villager to produce a good machinable foundry iron instead of his present pig,—which is so hard and brittle that it cannot be machined. The expense of this work is being met partly by a gift from Mr. Rockefeller to the National Christian Council and partly by friends in Shansi who are willing to meet the cost of a small furnace. Mr. Rockefeller's gift was \$4,000 gold.

During the early part of the year the collecting and analysis of samples of ceramic materials will be proceeded with as rapidly as possible, as a preliminary to the attempts we desire to make—as soon as funds permit—to introduce a more scientific and economical practice into the pottery industry in North China. Study of present practice in two centres in Hopei has already been made and some analytical data secured and these give clear indications of the possibility of important improvements. Cheeloo University is deeply interested in the glass manufacture at Poshan and it is desired to assist them in some contemplated research in this field. In our budget we have an item of \$1,000 Mex. for the glass and of \$5,900 for pottery, which would provide for the establishment of experimental work in the latter field late in the year.

One of the major tasks of the current year is expected to be the consideration of the types of vocational training which may be possible for rural schools that are anxious to fit their pupils, or

at least some of them, for village industry. The consideration will extend, not only to the technical training required but to the place it should occupy in the whole system of rural education. Reference has already been made to Yenching's assistance in regard to leather. All the educational institutions in touch with the Union are actively interested in these problems. They are however some of the most difficult in the whole field of education.

The total budget for the year amounts to \$51,750 Mex., of which \$36,200 is in hand or promised. There remains a sum of \$15,500 to raise, of which it is hoped to secure \$1,200 gold in America, £350 in England, and the balance locally. Until this has been secured it will be impossible to go forward with confidence.

The Future

Early in the current year alternative plans will if possible be drawn up covering a period of three years beginning from January 1934. Suggestions have sometimes been made that the logical course is to establish a Rural Industries Institute, but there seems to be good reason for allowing an experimental period before making an appeal for the large funds which would be required for the founding of such an institute. Even so a considerable expansion of work already started will be called for in the next three years if success attends our present efforts and it is desirable to enter the ceramic field on an adequate basis. The funds should, if possible, provide for visits, in other departments than the iron, for foreign experts, as soon as the time seems ripe in each particular trade.

The textile section which has made a promising start under Mr. Dean's able direction should be placed in a position to see what can be done to perfect an already established and important rural industry such as that at Kaoyang, which has grown up without any fostering care. In addition to those expert in textile machinery the services should be secured of those familiar with textile design and the whole technology of the cotton fibre and rayon.

If Mr. Walters is successful with the iron smelting in Shansi, the problem will become that of improving the local iron trades producing agricultural implements, tools, household requirements, and the growing needs of village industry.

An attempt should be made to improve not only the actual pottery manufacture at one of our northern centres such as Pengcheng, but also to reorganise transportation, improve the roads, provide for co-operative or other modern banking, and investigate the problem of the provision of electric power.

There are of course many other possible projects almost as urgent and important as these. It would seem to be desirable to discuss the whole policy with those best able to advise in connection with it; to seek the interest of official bodies and foundations in order that progress may not be delayed if, and when, success in any particular direction is assured. Once the methods have been satisfactorily worked out and competent staff trained there is no reason why great extension should not be possible throughout the whole north and northwest, in the main fields of textiles, metal working, wood working, leather, paper, ceramic, chemical and many smaller trades.

2nd February, 1933.

Extracts from the Constitution and By-laws

The object of the Union shall be the furthering of rural and small scale industries through the provision of research, of training, and of assistance in co-operative organization, with a view to improving the livelihood of the people.

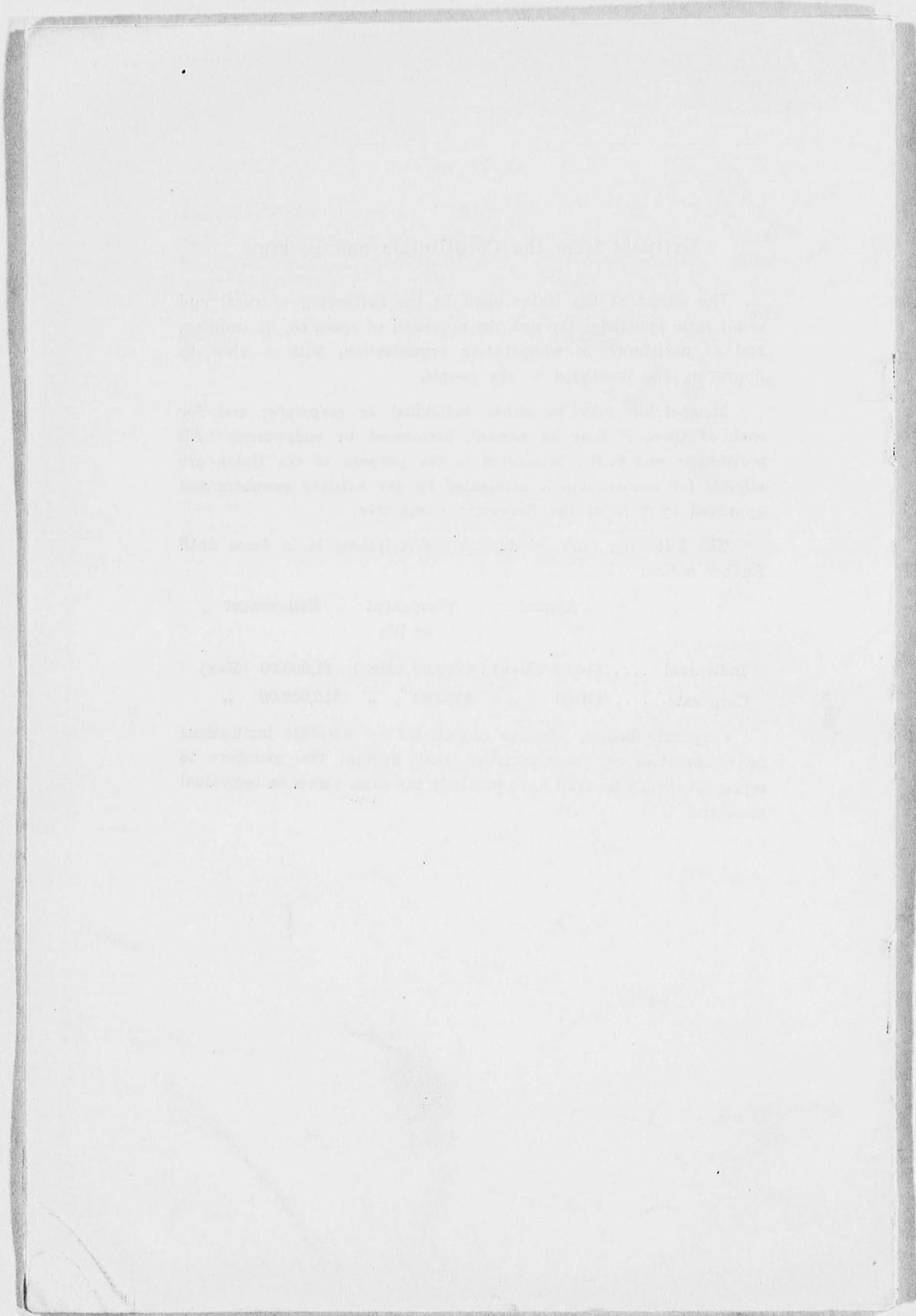
Membership may be either individual or corporate; and for each of these it may be annual, permanent or endowment. All individuals and bodies interested in the purpose of the Union are eligible for membership if nominated by five existing members and approved by vote of the Executive Committee.

The following scale of dues or subscriptions is in force until further notice:

	Annual	Permanent or life	Endowment
Individual	\$10.00 (Mex)	\$100.00 (Mex)	\$1,000.00 (Mex)
Corporate	\$50.00 ,,	\$500.00 ,,	\$10,000.00 ,,

Corporate bodies, whether educational or scientific institutions or co-operative or other societies, may appoint two members to represent them who shall have precisely the same rights as individual members.

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