MEETING OF THE BOARD OF TRUSTEES

OF THE

UNIVERSITY OF ILLINOIS

September 26, 1924

The September quarterly meeting of the Board of Trustees of the University of Illinois was held at the University, in Urbana, at 9 o'clock a. m. on Friday, September 26, 1924.

The following members were present: President Noble, Mr. Armstrong, Mrs. Blake, Mrs. Busey, Mrs. Evans, Mrs. Grigsby, Mrs. Ickes, Mr. Trees.

President Kinley was present.

MINUTES APPROVED

The Secretary presented the minutes of the meeting of July 14, 1924.

On motion of Mrs. Grigsby, the minutes were approved as printed on pages 1 to 18 above.

EXECUTIVE COMMITTEE MEETINGS

The Secretary presented for record the minutes of meetings of the Executive Committee held on July 22 and September 22, 1924.

MEETING OF JULY 22, 1924

Pursuant to authority given by the Board of Trustees at its meeting on July 14, 1924, the Executive Committee of the Board on July 22, 1924, awarded the contract for the paving of Fourth Street to E. F. Kent & Company. The bids were received on July 21, as follows:

R. P. Devine	$14,500.00
E. F. Kent & Company	14,794.00
Sternberg-Powell	14,815.40
F. A. Somers	15,745.00

Because the low bidder was also low on the north end of Fourth Street and on Stadium Drive, it was felt that one contractor could not handle such a large amount of paving and get it done by the time the University required the work to be completed. Therefore the low bidder—R. P. Devine—was given an opportunity to withdraw his bid and the contract was awarded to the second low bidder—E. F. Kent & Company, for $14,794.

MEETING OF SEPTEMBER 22, 1924

A meeting of the Executive Committee of the Board of Trustees was held in Chicago at ten o'clock a. m. Monday, September 22, 1924, to consider bids on the approach from Fourth Street to the Stadium.

Dr. W. L. Noble and Mr. M. J. Trees were present.

Bids were received as follows:

King & Petry	$14,500
English Bros	14,890
E. F. Kent & Co	20,400
Ellis Brooks	21,073

King and Petry being the lowest bidders it was unanimously voted to award them the contract at FOURTEEN THOUSAND FIVE HUNDRED (14,500) DOLLARS on the basis of ten feet of concrete all the way around and the center field of asphalt, and in accordance with blue print prepared by the office of the Supervising Architect.

MATTERS PRESENTED BY PRESIDENT KINLEY

The Board considered the following matters presented by the President of the University.

SUPPLEMENTARY REPORT ON ESTABLISHING A GOAT HERD

(1) After the hearing of the petitions for the establishment of a goat herd at the University (see minutes, June 9, 1924, page 582) I requested the Committee of the faculty which had reported on the matter to consider the arguments advanced at the hearing (of which I had made notes which I sent to the Committee). I submit their supplementary report and ask final action on the request of the petitioners. I also suggest that the reports be printed in the minutes.

January 3, 1924

To the Board of Trustees of the University of Illinois

LADIES AND GENTLEMEN:

At the meeting of September 25, 1923, your Board referred to me for investigation and report the subject of the importance of milch goats and the desirability of establishing a herd at the University, with a view to the development of the goat industry and promoting the use of the milk of goats for children.

Accordingly, I requested Dean Mumford to appoint a committee to investigate and report on the matter. He appointed Dr. W. W. Yapp, (Ph.D.), Assistant Professor of Dairy Cattle, Chairman; Mr. W. G. Kammlade (M.S.), Assistant Professor of Sheep Husbandry; Dr. J. H. Beard (A. M., M.D.), Professor of Hygiene and University Health Officer; and Professor Henry B. Ward (Ph.D., D.Sc.), Professor of Zoology and former Dean of the Medical School of the University of Nebraska. I

requested Dean Mumford to instruct the committee to go into the matter as fully as possible. The Committee's report, submitted through Dean Mumford, was received by me December 19, 1923.

Accompanying the committee's report is a special report by Dr. J. H. Beard entitled "Goat's Milk versus Cow's Milk in Infant Feeding." This report is an exhaustive inquiry into the comparative value of the two kinds of milk for the purpose indicated. In addition to the comparison on the basis of chemical analysis, Dr. Beard adds testimonials from recognized authorities on the subject. He takes up in his discussion eight propositions or theses concerning goat's milk. He summarizes his conclusions by pointing out that goat's milk has no superiority to cow's milk in the artificial feeding of infants, and that cow's milk properly handled and tested is superior to goat's milk and safer, unless the latter is similarly produced and tested. There seems to be no sufficient foundation for the claim that goat's milk is of superior nourishing quality excepting for a small minority of cases.

The report of the committee discusses the present distribution of milch goats, their importance in relation to other farm animals, their acquisition and maintenance, and the probable cost thereof. The conclusions of the committee on the whole matter are that milch goats are not of sufficient economic importance to justify the abandonment of any established work of the Experiment Station, or to establish and maintain a herd and conduct investigations of goats and goat's milk.

It is the opinion of the committee that there would be few students attracted to such a course and that the present importance or probable development of milch goats in the Central States is so small, relatively speaking, as to make it inadvisable to establish breeding herds of these animals, either at the University or elsewhere in the State.

In discussing the cost of acquisition and maintenance, the committee points out that an accurate estimate is difficult because of the uncertainty of the requirements. We could not put up proper quarters for a herd of goats of the kind in mind for less than $5,000, and that would be a wooden building. In addition, equipment would probably cost $500 to $1,000 more. A moderate-sized herd, according to the committee, would require an expenditure of $1,500 to $2,500. In other words, the initial or capital cost, if the project were properly established, would run from $7,000 to $8,500 or more. In addition, some land would be needed for grazing purposes. We do not at present have as much land for our agricultural purposes as we should like to have.

As to annual operation, it would probably cost for upkeep, heat, light, water, etc., $500 to $1,000 a year. In addition, there would be the wages of one or two employees, at least one of whom must be of high clerical grade. This would require probably $2,700 more. Finally, the time of a research man of first grade to carry on or supervise research would cost from $2,000 to $5,000 or $6,000, according to the salary of the man put on the work and the time he gave to it. The annual cost of keeping the herd up to standard in numbers and character would easily run to $500. Therefore, we would have imposed upon us at once or soon a total operating charge for such a project of from $5,700 to $9,200 or $10,000.

In view of the report of the committee, I cannot advise you that the University would be justified in undertaking this project as an addition to our present work, either from the point of view of its economic importance, or of its hygienic or public health importance. Nor would we be justified in substituting it for any established work.

Very truly yours,

DAVID KINLEY,
President

REPORT OF COMMITTEE

Appointed by the Dean of the College of Agriculture and Director of the Agricultural Experiment Station, October 6, 1923.

H. B. WARD, Zoology
J. H. BEARD, M.D., University Health Officer
L. A. ADAMS, Zoology
W. G. KAMMLADE, Animal Husbandry
W. W. YAPP, Dairy Husbandry

BRIEF OF REPORT

I. Present Distribution of Milch Goats
II. Importance in Relation to Other Farm Animals
  A. Numerically and in value
  B. In milk production
    1. Yield
    2. Suitability for infants and invalids
    3. Economy of production
    4. For needs of the individual family
  C. For class-room instruction
  D. Experimentation
    1. Inheritance studies
    2. Physiology of lactation
    3. Nutrition
III. Acquisition and Maintenance
  A. Physical equipment
  B. Cost of animals
    1. Pure-bred registered
    2. Grade
  C. Supervision and labor
IV. Conclusions and Recommendations

Questions which were given special consideration by the members of the committee in the preparation of this report.

1. Is there sufficient merit in the goat as a domestic animal to justify its introduction into the University of Illinois animal investigational program?

2. Are our agricultural students interested in studying the subject of goats and goat-milk productions?

3. In what department of the Agricultural College should goats be placed if introduced?

4. Is it desirable or possible with our program of experimentation as already outlined to undertake any extensive investigation with milch goats?

PRESENT DISTRIBUTION OF MILCH GOATS

In certain foreign countries,[1-2] notably Switzerland, Germany, France, Italy, Spain, Norway, and Great Britain, milch goats are kept in considerable numbers and assume a place of economic importance. In these countries goats' milk forms a goodly portion of the general milk supply and to a certain extent is a factor in the commercial production of butter and cheese. Many of the goats, even in these countries, are kept by families unable to keep a cow, and for this reason these animals are frequently spoken of as "poor man's cow."

In the United States milch goats have not become generally popular.[2] Except in the state of California, and to a lesser degree in some of the southwestern states, the milch goat industry is unimportant. In the suburbs of our larger cities individual animals and small herds are frequently kept. In such cases the milk from these animals is used to supply milk for the individual family. In most cases these families are of foreign birth and have been accustomed to goat's milk in their native land. More recently herds are being established adjacent to our larger cities to supply milk for infant and invalid feeding.

IMPORTANCE IN RELATION TO OTHER FARM ANIMALS

In Tables I and II will be found the comparative numbers and values of the common farm animals as given in the 1920 Census report of the United States.[3]

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[1]Voorhies, Edwin C., *The Milch Goat in California.* California Agriculture Experiment Station Bulletin 285. (1917)

[2]Shaw, Edward L., *Milch Goats.* Farmers' Bulletin 920. (1918)

[3]*Fourteenth Census Report of the United States;* Vol. VI; Part 3. Agriculture; pp. 55-63.

TABLE I

NUMBER OF COMMON FARM ANIMALS IN THE UNITED STATES AND IN ILLINOIS

Territory Included	*All Goats*	*All Cattle*	*Sheep*	*Swine*	*Poultry*[1]
U. S.....	3,563,659	68,764,086	35,483,558	61,984,798	372,825,264
Illinois.....	12,362	2,884,252	674,879	4,854,660	25,864,558

TABLE II

VALUE OF COMMON FARM ANIMALS ON FARMS IN THE UNITED STATES AND ILLINOIS

Territory Included	*All Goats*	*All Cattle*	*Sheep*	*Swine*	*Poultry*
U. S.....	$17,565,363	$3,651,970,229	$395,401,286	$988,582,380	$373,394,057
Illinois.....	45,291	182,258,690	7,946,064	90,203,036	25,234,061

From the figures given in Table II, it may be calculated that in the United States the value of all goats, including those kept for meat and mohair as well as those kept for milk, is 1/208 as great as the value of all cattle, 1/23 as great as the value of sheep, 1/56 as great as swine, and 1/21 as great as poultry. In Illinois the ratio is 1 to 3,774, 1 to 164, 1 to 1,867 and 1 to 522 respectively.

Unfortunately no authoritative census report at hand lists milch goats separately from other goats. It is true, however, that 2,385 of the 12,362 goats listed in Illinois are reported as kept in cities. Probably the greater number of these are milch goats though some of them are undoubtedly pets.

MILK PRODUCTION

The yields credited to milch goats naturally vary widely. Dr. Kohlschmidt[2] gives the average production of 10 Swiss goats as 678.41 liters[3] each (equivalent to approximately 1,490 pounds) per year. Dettweiler [4] found the general production average to be about 500 liters (1,100 pounds) per year with a maximum production of 1,000 liters (2,200 pounds) annually. Weber[5] in an investigation with milch goats covering several lactation periods of the same animals, found a variation of from 470 to 1,947 pounds for the yearly period. He further points out that the average doe is capable of producing about ten times her own weight in milk each year. In this country the average cow in our milk producing districts yields about 5 to 8 times her own weight annually, but many of our heavy milking animals are capable of producing from 14 to 18 times their own weight for that period. Voorhees[6] reports a production in the case of the Toggenburg doe El Chivar's Geneva of 2158.0 pounds of milk in 312 days. Jordan and Smith[7] report a yearly production for one pure-bred Saanen doe of 1845.2 pounds of milk and consider a 700-900 pounds production a fair average.

If we assume that the average production of milch goats is about 800 pounds of milk per lactation period, it would require from 7 to 10 goats to equal the production of one cow of a similar standard of quality.

SUITABILITY FOR INFANTS AND INVALIDS

Many statements have been made regarding the superiority of goat's milk over cow's milk for infant and invalid feeding. To bring out these points more clearly each statement is listed and discussed separately.

[1]Number on farms only.

[2]Dr. Kohlschmidt, *Further Investigation of Milch Production in Goats.* (Translation of title). Landwirtschaftliche Jahrbücher. Vol. 26; pp. 783-802. (1897)

[3]Liter may be considered as equivalent to a quart or approximately 2.2 pounds.

[4]Dettweiler, *Arbeiten der D. L. G. Heft 128; Lehrgang Eisenach S 268.* (1907)

[5]Dr. Weber, *Investigation of Milch Production of Goats.* 1908. Milchwirtschaftliches Zentralblatt. Vol. V. No. 5. pp. 193-208. May, 1909.

[6]Voorhies, E. C., *The Milch Goat in California.* California Agr. Exp. Station Bulletin 285. (1917)

[7]Jordan, W. H., and Smith, G. A., *Goat's Milk for Infant Feeding.* New York Agr. Exp. Station Bulletin 429. (1917)

1. "Goat's milk is the nearer in chemical composition to that of mother's milk."

The following analyses of milks by Bosworth and Van Slyke[1] show that in reality there is so little difference between goat's and cow's milk that the advantages that either has over the other in its approach to human milk is too small to be of consequence in feeding the average infant.

TABLE III.

COMPOUNDS IN COW'S MILK, GOAT'S MILK, AND HUMAN MILK

Compounds	*Cow's Milk* *Percent*	*Goat's Milk* *Percent*	*Human Milk* *Percent*
Fat	3.90	3.80	3.30
Milk-sugar	4.90	4.50	6.50
Proteins, combined with calcium	3.20	3.10	1.50
Salts	0.901	0.939	0.313
Di-calcium phosphate	0.175	0.092	0.000
Tri-calcium phosphate	0.000	0.062	0.000
Mono-magnesium phosphate	0.103	0.000	0.027
Di-magnesium phosphate	0.000	0.068	0.000
Tri-magnesium phosphate	0.000	0.024	0.000
Mono-potassium phosphate	0.000	0.073	0.069
Di-potassium phosphate	0.230	0.000	0.000
Potassium citrate	0.052	0.250	0.103
Sodium-citrate	0.222	0.000	0.055
Potassium Chloride	0.000	0.160	0.000
Sodium Chloride	0.000	0.095	0.000
Calcium Chloride	0.119	0.115	0.059

The Nutrition Division of the California Experiment Station[2] has examined a very large number of samples of goat's milk from different breeds and different periods of lactation. The summary given in Table IV is compiled from fifty complete analyses.

TABLE IV

COMPOSITION OF GOAT'S MILK AS REPORTED BY VOORHIES

	Average *Percent*	*Minimum* *Percent*	*Maximum* *Percent*
Water	86.09	82.56	90.27
Total Solids	13.81	9.73	17.44
Fat	4.79	1.20	8.40
Protein	3.55	2.10	4.80
Lactose	4.85	4.00	6.40
Ash	0.72	0.56	0.96
Specific gravity	1.0340	1.0310	1.0370

Other sources reported by Voorhies give the composition of goat's milk as follows:

TABLE V

COMPOSITION OF GOAT'S MILK AS DETERMINED BY SEVERAL AUTHORITIES

Authority	*Water* *Percent*	*Fat* *Percent*	*Casein and Albumen* *Percent*	*Sugar* *Percent*	*Ash* *Percent*
Renesse	85.50	4.80	5.00	4.00	.70
Landweinth	85.60	4.60	4.80	4.30	
Hoffman	86.19	4.73	3.68	4.50	.90
Koenig	86.88	4.07	3.76	4.64	.85

[1]Bosworth, A. W., and Van Slyke, L. L., Technical Bulletin 46. New York Experiment Station.

[2]Voorhies, E. C., *The Milch Goat in California.* (Repriat 1921). California Agricultural Experiment Station Bulletin 265.

TABLE VI

PERCENTAGE OF CONSTITUENTS IN MOISTURE-FREE AND ASH-FREE CASEIN[1]

Constituents	*From Goat's Milk Percent*	*From Cow's Milk Percent*
Ash	0.36	0.06
Carbon	52.50	53.50
Hydrogen	7.16	7.13
Nitrogen	15.67	15.80
Phosphorus	0.71	0.71
Sulphur	0.71	0.72
Oxygen (by difference)	23.25	22.08

TABLE VII

ANALYSIS OF CASEIN OF COW'S MILK AND OF GOAT'S MILK[2]

The Casein Separated from	*Carbon Percent*	*Hydrogen Percent*	*Nitrogen Percent*	*Sulphur Percent*	*Phosphorus Percent*	*Oxygen Percent*
Cow's milk	52.825	7.095	15.64	0.725	0.808	22.906
Goat's milk	52.805	7.02	15.64	0.718	0.815	23.002

When all the analyses from various sources as given above are taken into consideration it would seem that it is difficult to demonstrate any fundamental difference in chemical composition which could be regarded as favoring goat's milk over cow's milk for infant or invalid feeding.

2. "Goat's milk is alkaline in reaction and therefore of great value to persons with hyperacidity."

Fresh goat's milk is slightly more acid[3] than fresh cow's milk and appreciably more acid than human milk.

The real acidity[4] of goat's milk is considerably less than that of cow's milk. There is a marked difference between the acidity of the whole goat's milk and that of its serum. In normal goat's milk, which is nearly neutral, there is present in suspension di-calcium phosphate which, in the presence of the water in the milk, undergoes more or less decomposition, which, according to the work of Cameron and Hurst, dissolves more acid than base from the solid phase. The result of this action is that the insoluble portion of the milk becomes more basic than the whole milk, while the soluble portion becomes more acid. In determing the acidity of milk, it should be remembered that the presence of di-calcium phosphate furnished favorable conditions for the formation of acid phosphate and tri-calcium phosphate, resulting in an increased requirement of alkali for neutralization, and, apparently, a higher acidity if the milk is titrated directly.

3. "The curd (casein) of goat's milk is smaller and flocculent while that of cow's milk is larger and tough."

The casein of goat's milk[1] forms a series of compounds with bases in which the combining proportions are the same as in the case of casein prepared from cow's milk. Comparison of compounds of goat's milk, cow's milk, and human milk shows that the amount of salts and the number of different salts in human milk is less than in cow's or goat's milk. The amount of chlorides in goat's milk is larger than in either human or cow's milk. The phosphates in goat's milk are combined with more bases than in other milks.[5]

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[1]Bosworth, A. W., and Van Slyke, L. L., *The Casein and Salts of Goat's Milk.* Technical Bulletin 46. New York Agricultural Experiment Station. Geneva, New York.

[2]Tangl, Franz, *Archiv für die Gesammte-Physiologie.*

[3]Schultz, E. W. and Chandler, L. R. *The Acidity of Goat's Milk in terms of Hydrogen Ion Concentration with Comparisons to that of Cow's and Human Milk.* Jour. Biol. Chem., 1921, 46, 131.

[4]Bosworth, A. W., and Van Slyke, L. L., *The Casein and Salts of Goat's Milk.* Technical Bulletin 46. New York Agricultural Experiment Station, Geneva, New York.

[5]Bosworth, A. W., and Van Slyke, L. L., *The Casein and Salts of Goat's Milk.* Technical Bulletin 46 New York Agricultural Experiment Station, Geneva, N. Y.

4. "The fat of goat's milk is more digestible than that of cow's milk, because the fat globules of goat's milk are smaller than those of cow's milk. It is, therefore, in better emulsion and offers a greater surface for the action of the digestive ferments."

The size of the fat globules of milk[1] is not necessarily a criterion of fat digestibility. Ninety-one percent of goat's milk fat globules are under four microns in diameter; 90% of the cow's milk fat globules are over four microns, while human milk fat globules attain a size of thirty-two microns in diameter. If size of globules were the great factor of milk-fat digestibility, goat's milk, from the standpoint of fat would be better than cow's milk, and both goat's and cow's milk would be superior to human milk in infant feeding.

Certain German observers[2] hold that the fat of goat's milk under action of digestive ferments splits more readily into the lower fatty acids than the fat of cow's milk. They believe that the absorption of these lower fatty acids in infant feeding causes destruction of the red blood cells and produces a rather severe anemia in children (Ziegenmilchänemie).

5. "As goats rarely have tuberculosis, the universal adoption of goat's milk in feeding infants and children would save approximately 11,000 lives and would prevent about 10% of all the tuberculosis occurring in the United States annually."

Standard methods of the production of cow's milk (use of the tuberculin test, sanitary handling, and pasteurization) make cow's milk as safe as goat's milk. The goat is subject to garget, Malta fever (fatal cases of which have been reported to a point as far north as Utah), and foot and mouth disease, all of which are milk borne. Unless the goat's milk were delivered on the hoof, as in certain European countries, it would be safe for human consumption only where handled in accordance with the standard methods used for cow's milk.

The tendency of goats to browse omnivorously makes their milk more likely to be toxic than that of the cow. A number of cases have been reported in which severe symptoms of poisoning have been produced in users of goat's milk without the goats showing any signs of illness.

6. "If goat's milk is properly produced and handled, there should not be any goaty odor."

There is a very strong prejudice among the majority of Americans against goats, their odors, and the flavor of their milk. The goaty odor of goat's milk comes from the hair and the dirt which fall into it from the body of the animal and by absorption when the doe is milked near the buck. If the doe is fed and milked under highly sanitary conditions, no disagreeable odor or flavor is found in goat's milk, altho its taste is distinctly different from cow's milk. This difference seriously reduces its desirability in the minds of the average Americans.

7. "Remarkable results in certain cases have followed artificial feeding of infants with goat's milk."

The truth of this claim is unquestioned. A few infants have an idiosyncrasy to cow's milk. It disagrees with them even when carefully produced and modified. This condition is probably due to anaphylaxis to cow's protein and is similar to asthma or hives (urticaria), caused by the inhalation or ingestion of protein to which the individual is peculiarly susceptible. In these rare cases goat's milk is useful, but as they occur only about once in 10,000 cases, they do not create a large market for goat's milk.

(8) "Goat's milk has been very efficacious in 'rheumatism.' "

Pharmacologists do not record that goat's milk contains any substance capable of producing a definite and characteristic effect valuable in the treatment of arthritis.

ECONOMY OF PRODUCTION

Jordan and Smith[3] report a feed cost of production in the case of one Saanan goat of 1.27 cents per quart of milk. The average feed cost for all goats under their investi-

[1]Schultz, E. W., and Chandler, L. R., "*Size of Fat Globules in Goat's Milk.*" Jour. Biol. Chem., 1921, 46, 133. (1921).

[2]Stoeltzner, W., *Ueber Ziegenmilchanemie.* Munch. Med. Wochsft. 1922, 69. Dettweiler, *Ueber Ziegenmilchanemie.* Munch. Med. Wochsft. 1922, 69, 1013.

[3]Jordan, W. H., and Smith, G. A., *Goat's Milk for Infant Feeding*, New York Agricultural Experimental Station Bulletin. No. 429, Geneva, New York. (1917).

gations covering a period of three years was 3.4 cents per quart. They further report the average feed cost for 25 Jersey cows kept in the station herd as .92 cents per quart, or less than 1/3 the cost for goats.

It must be pointed out that the feed costs reported by Jordan and Smith can in no sense be regarded as applicable to present conditions. The cost of feed has advanced until it is two or three times higher than it was at the time the experiment mentioned above was conducted. However, these figures show the comparative cost of feeding goats and cows. Furthermore, feed cost by no means represents the total cost of production. In cost accounting investigations conducted by this Station on dairy farms in Illinois it was found that from the years 1918 to 1922, inclusive, the feed cost varied from 50 to 65 percent, of the total cost of production. The more complete results of this study are given in Table 8.

TABLE VIII

RELATION OF FEED COST TO TOTAL COST OF MILK PRODUCTION—ILLINOIS DAIRY COST-ACCOUNTING INVESTIGATIONS

Year	*1918*	*1919*	*1920*	*1921*	*1922*
Number farms studied.....	23	21	17	18	26
Percentage feed cost bore to total cost.....	64.74	63.70	60.72	50.34	52.70

The above data agree with the findings of Voorhies. Voorhies[1] found that five goats showed an average feed cost of 6.4 cents per gallon of milk and in the case of 73 complete lactation periods for Jerseys, Holsteins, Guernseys, and Ayrshires for cows kept in the station herd the feed cost was 8.3 cents per gallon. In this case the feed cost of producing cow's milk was slightly more than that for goats.

A questionnaire sent out to leading breeders of registered milch goats brought replies from 57 different breeders. The average of the 31 replies which gave a production figure show a yield of 3.5 quarts per day. This undoubtedly refers to the production when does are at their heaviest flow.

It would appear when feed cost alone is considered, that there is very little difference between the cow or the goat in economy or efficiency of production. When labor is taken into account the balance is probably in favor of the cow.

NEEDS OF THE INDIVIDUAL FAMILY

A goodly number of milch goats are maintained to supply the needs of the individual family. In most cases these goats are kept in the suburbs of our larger cities and by our foreign-born population. The milch goat is very well adapted by nature for this kind of use, mainly because it is considered to be immune from tuberculosis. While it is possible to protect the general milk supply from germs of this disease, it is very probable that in districts where milch goats are most numerous, very few precautions, if any, would be taken by the individual family to protect the milk from contamination.

The kind of goats kept under the conditions mentioned are for the most part inexpensive and therefore well within the means of the poorer people. Furthermore, the goat is an omnivorous feeder, thrives fairly well on a scanty ration, is naturally cleanly, and can be kept on a very small area. It seems, therefore, that the milch goat is especially well adapted to this particular use and will probably become increasingly popular in supplying milk for the individual family. The demand for goats for this purpose, however, is necessarily limited and cannot be expected to be an important factor in our milk supply.

FOR CLASS ROOM INSTRUCTION

Agricultural students are generally attracted to courses that give training along lines with which they are familiar. They as a rule prefer courses which yield information that can be directly applied to agricultural practices in their own communities. In live-stock judging and management, the largest registration occurs in those courses which deal with a popular class of animals. In other words, the student registration

[1] Voorhies, E. C., *The Milch Goat in California.* California Station Bulletin No. 285. (1917)

in a given course tends to be in accord with the importance in the state of the particular class of live stock studied. In view of these facts, it is hardly likely that any considerable number of students in the College of Agriculture would elect a course in goat production were such a course to be offered.

EXPERIMENTATION

For certain purposes of investigation, milch goats have advantages over cows. Being smaller animals they can be kept at less expense, an item of importance in making inheritance studies, since large numbers are ordinarily required to make an analysis of Mendelian characters. Furthermore, goats are capable of more rapid reproduction, a characteristic of value where considerable numbers are used. It must be pointed out, however, that goats cannot always take the place of cows in making studies of Mendelian characters inasmuch as the finding in goats might not prove applicable to cattle.

In studying the physiology of milk production the goat furnishes a number of advantages. In the first place the small size of the animal as compared to the cow makes it more convenient to handle under laboratory conditions. Furthermore, the goat is tractable and learns readily items of importance in certain types of investigation. The mammary gland of the goat is simple (that is, it has two glands instead of four) and is more accessible than with the cow. When accidents occur which injure the animal, as is often the case in such investigations, the loss is less in the case of the goat than in the cow.

The goat has some advantages over the cow in nutritional investigations. These occur principally in studies in metabolism. The solid excreta are firmer and less likely to be affected by the liquid than in the case of the cow, a condition which is especially desirable when animals are kept in metabolism crates without attendants.

ACQUISITION AND MAINTENANCE

To adequately house, at the University of Illinois, any considerable herd of goats would require the construction of a new building, or, in case some present building could be used, a considerable amount of remodeling and repairs would be necessary. The expense for housing is hard to estimate but it would probably be from $5,000 to $10,000 at a low estimate. Equipment for such building and other necessary material would add to this cost considerably.

The cost of the goats themselves secured through the regular channels would be a considerable item. In the questionnaire recently sent to breeders of pure-bred animals it was found that does range from $75 to $200 in price, the average being $120. Buck kids from $15 to $100, or an average of $55, and mature bucks are quoted at from $50 to $300, or an average of $125. Grade does range from $15 to $75, or an average of $38. Using these prices as a criterion, the purchase of breeding animals sufficient to establish a moderate sized herd, would require an expenditure of from $1,500 to $2,500.

It would require at least one, very probably two, employees to take care of milk, and keep records on a breeding herd. In addition, if any very extensive investigations were to be conducted it would require the entire time of some member of the staff to carry forward such investigation.

CONCLUSIONS AND RECOMMENDATIONS

1. That the establishment and maintenance of a herd of goats, either for teaching or investigational purposes would necessarily mean the curtailment of other well established lines of work.

2. That milch goats are not of sufficient economic importance to justify the withdrawal of funds from the regular animal investigational program.

3. That only in rare cases, would students in the University be attracted to courses in milch goat production.

4. That in light of the present importance or probable development of milch goats in the central states, when compared to other classes of live stock, it is inadvisable to establish breeding herds of these animals, either at the University or elsewhere in the state.

5. That should conditions arise which make it desirable to secure a limited number of goats for the investigation of certain problems in milk production, the same should be under the direction of the Department of Dairy Husbandry.

HENRY B. WARD
J. HOWARD BEARD
L. A. ADAMS
WM. G. KAMMLADE
W. W. YAPP
Members of the Committee

GOAT'S MILK VS. COW'S MILK IN INFANT FEEDING

J. HOWARD BEARD, M.D.

January 3, 1924

(1) "Goat's milk is the nearer in chemical composition to that of mother's milk."

The following analyses show that in reality there is so little difference between goat's and cow's milk that the advantages that either has over the other in its approach to human milk is too small to be of consequence in feeding the average infant.

1. Compounds in cow's milk, goat's milk, and human milk.[1]

Compounds	*Cow's Milk* *percent*	*Goat's Milk* *percent*	*Human Milk* *percent*
Fat	3.90	3.80	3.30
Milk-sugar	4.90	4.50	6.50
Proteins, combined with calcium	3.20	3.10	1.50
Salts	0.901	0.939	0.313
Di-calcium phosphate	0.175	0.092	0.000
Tri-calcium phosphate	0.000	0.062	0.000
Mono-magnesium phosphate	0.103	0.000	0.027
Di-magnesium phosphate	0.000	0.068	0.000
Tri-magnesium phosphate	0.000	0.024	0.000
Mono-potassium phosphate	0.000	0.073	0.069
Di-potassium phosphate	0.230	0.000	0.000
Potassium citrate	0.052	0.250	0.103
Sodium citrate	0.222	0.000	0.055
Potassium chloride	0.000	0.160	0.000
Sodium chloride	0.000	0.095	0.000
Calcium chloride	0.119	0.115	0.059

2. Composition of goat's milk (California Agricultural Experiment Station).

The Nutrition Division has examined a very large number of samples of goat's milk from different breeds and different periods of lactation. The summary below is compiled from fifty complete analyses:

	Average *percent*	*Variations* *Minimum* *percent*	*Maximum* *percent*
Water	86.09	82.56	90.27
Total Solids	13.81	9.73	17.44
Fat	4.79	1.20	8.40
Protein	3.55	2.10	4.80
Lactose	4.85	4.00	6.40
Ash	0.72	0.56	0.96
Specific Gravity	1.0340	1.0310	1.0370

3. Other sources give the composition of goat's milk as follows:

[1]Technical Bulletin 46. A. W. Bosworth and L. L. Van Slyke.

Authority	*Water percent*	*Fat percent*	*Casein and Albumen percent*	*Sugar percent*	*Ash percent*
Renesse.....	85.50	4.80	5.00	4.00	.70
Landweinth.....	85.60	4.60	4.80	4.30	
Hoffman.....	86.19	4.73	3.68	4.50	.90
Koenig.....	86.88	4.07[1]	3.76	4.64	.85

4. Percentage of Constituents in Moisture-Free and Ash-Free Casein.[2]

	From Goat's Milk Percent	*From Cow's Milk Percent*
Ash.....	0.36	0.06
Carbon.....	52.50	53.50
Hydrogen.....	7.16	7.13
Nitrogen.....	15.67	15.80
Phosphorus.....	0.71	0.71
Sulphur.....	0.71	0.72
Oxygen (by difference).....	23.25	22.08

5.[3]

Das Kasein abgeschieden aus...	C %	H %	N %	S %	P %	O %
Kuhmilch.....	52.825	7.095	15.64	0.725	0.808	22.906
Ziegenmilch...	52.805	7.02	15.64	0.718	0.815	23.002

(2) "Goat's milk is alkaline in reaction and therefore of great value to persons with hyperacidity."

1. Fresh goat's milk is slightly more acid than fresh cow's milk and appreciably more acid than human milk.[4]

2. The real acidity of goat's milk is considerably less than that of cow's milk. There is a marked difference between the acidity of the whole goat's milk and that of its serum. In normal goat's milk which is nearly neutral there is present in suspension di-calcium phosphate which, in the presence of the water in the milk, undergoes more or less decomposition, which, according to the work of Cameron and Hurst, dissolves more acid than base from the solid phase. The result of this action is that the insoluble portion of the milk becomes more basic than the whole milk, while the soluble portion becomes more acid. In determining the acidity of milk, it should be remembered that the presence of di-calcium phosphate furnishes favorable conditions for the formation of acid phosphate and tri-calcium phosphate, resulting in an increased requirement of alkali for neutralization, and, apparently, a higher acidity if the milk is titrated directly.[5]

(3) "The curd (casein) of goat's milk is smaller and flocculent while that of cow's milk is larger and tough."

Possibly. However, the casein of goat's milk forms a series of compounds with bases in which the combining proportions are the same as in the case of casein prepared from cow's milk. Comparison of compounds of goat's milk, cow's milk, and human milk shows that the amount of salts and the number of different salts in human milk is less than in cow's or goat's milk. The amount of chlorides in goat's milk is larger than in either human or cow's milk. The phosphates in goat's milk are combined with more bases than in the other milks.[6]

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[1]Variations, 2.29—7.55 percent (compiled from about 100 analyses).

[2]Technical Bulletin 46. Alfred W. Bosworth and Lucius L. Van Slyke.

[3]*Archiv für die Gesammte-Physiologie* by Franz Tangl.

[4]Schultz, E. W., and Chandler, L. R., "*The Acidity of Goat's Milk in Terms of Hydrogen Ion Concentration with Comparisons to That of Cow's and Human Milk.*" Jour. Biol. Chem., 1921, 46, 231.

[5]Bosworth, A. W., and Van Slyke, L. L., "*The Casein and Salts of Goat's Milk.* Tech. Bulletin 46. N. Y. Agr. Expr. Station, Geneva, N. Y.

[6]Bosworth, A. W. and Van Slyke, L. L., *The Casein and Salts of Goat's Milk.* Tech. Bulletin 46. N. Y. Agr. Expr. Station, Geneva, N. Y.

(4) "The fat of goat's milk is more digestible than that of cow's milk, because the fat globules of goat's milk are smaller than those of cow's milk. It is, therefore, in better emulsion and offers a greater surface for the action of the digestive ferments."

1. The size of the fat globules of milk is not necessarily a criterion of fat digestibility. Ninety-one percent of goat's milk fat globules are under four microns in diameter; 90% of the cow's milk fat globules are over four microns, while human milk fat globules attain a size of thirty-two microns in diameter. If size of globules was the great factor of milk fat digestibility, goat's milk, from the fat view-point, would be better than cow's milk, and both goat's and cow's milk would be superior to human milk in infant feeding. Such a conclusion in the face of experience is absurd.[1]

2. Certain German observers (notably W. Stoeltzner) hold that the fat of goat's milk under the action of digestive ferments splits more readily into the lower fatty acids than the fat of cow's milk. They believe that the absorption of these lower fatty acids in infant feeding causes destruction of the red blood cells and produces a rather severe anemia in children, *Milk Goat Anemia* (Ziegenmilchänemie).[2]

(5) "As goats rarely have tuberculosis the universal adoption of goat's milk in feeding infants and children would save approximately 11,000 lives and would prevent about 10% of all the tuberculosis occurring in the United States annually."

1. Standard methods of the production of cow's milk (use of the tuberculin test, sanitary handling, and pasteurization) make cow's milk as safe as goat's milk. The goat is subject to garget, Malta fever, and foot and mouth disease, all of which are milk borne. Unless the goat's milk was delivered on the hoof as in certain European countries, it would not be safe for human consumption unless handled in accordance with the standard methods used for cow's milk.

2. The tendency of goats to browse omnivorously makes their milk more likely to be toxic than that of cow's. A number of cases have been reported in which severe symptoms of poisoning have been produced in users of goat's milk without the goats showing any signs of illness.

(6) "If goat's milk is properly produced and handled, there should not be any goaty odor."

There is a very strong prejudice among the majority of Americans against goats, their odors, and the flavor of their milk. The goaty odor of goat's milk comes from the hair and dirt which fall into it from the body of the animal and by absorption when milking the doe near the buck. If the doe is fed and milked under highly sanitary conditions, no disagreeable odor or flavor is found in goat's milk, but its taste is distinctly different from cow's milk. This difference seriously reduces its desirability in the minds of the average Americans.

(7) "Remarkable results in certain cases have followed artificial feeding of infants with goat's milk."

The truth of this claim is unquestioned. A few infants have an idiosyncrasy to cow's milk. It disagrees with them when carefully produced and modified. This condition is probably due to anaphylaxis to cow's protein and is similar to asthma or hives (urticaria), caused by the inhalation or ingestion of protein to which the individual is peculiarly susceptible. In these rare cases goat's milk is useful, but as they occur only about once in 10,000 cases, it does not create a large market for goat's milk.

(8) "Goat's milk has been very efficacious in 'rheumatism'."

Pharmacologists do not record that goat's milk contains any substance capable of producing a definite and characteristic effect valuable in the treatment of arthritis.

SUMMARY

1. Except in those rare instances in which a child may have an idiosyncrasy or hypersensitiveness (anaphylaxis) to cow's milk, goat's milk has no superiority to cow's milk in the artificial feeding of infants.

2. Cow's milk from tuberculin tested herds, handled in accordance with standard methods of production, and pasteurized, is superior to and safer than goat's milk, unless similarly produced and treated.

[1]Schultz, E. W., and Chandler, L. R., *"Size of Fat Globules in Goat's Milk."* Jour. Biol. Chem., 1921. 46, 133.

[2]Stoeltzner, W., *Ueber Ziegenmilchanemie.* Munch. Med. Wochsft. 1922, 69, 4.

[3]Dettweiler, *Ueber Ziegenmilchanemie.* Munch. Med. Wochsft. 1922, 69, 1013.

3. The aversion of the average American to goats, their odors, and the flavor of their milk greatly limits the usefulness of goat's milk.

J. HOWARD BEARD

January 3, 1924

TESTIMONIALS FROM EXPERTS

"I have had no experience with goat's milk and, therefore, am unable to answer the question in your letter. My own baby was hypersensitive to cow's milk and could take goat's milk. Such cases in which the child is hypersensitive to cow's milk must be very rare."—E. A. PARK, *Professor of Pediatrics*, Yale University.

"Your letter received. I have successfully used goat's milk in cases in which the child has been sensitized to cow's milk. I feel that it has quite a field for usefulness in such children—all of which means there is very little market for goat's milk."—CHARLES GILMORE KERLEY, M.D., *Professor of Pediatrics*, College of Physicians, New York City, N.Y.

"I have had at my disposal, at the Mount Sinai Hospital, a herd of goats which furnished the milk for my nurslings in the hospital. In spite of all the literature which you have got on the subject of goat's milk, and which I grant is more or less true, the babies would not take this milk. We had it delivered fresh. It had a peculiar odor like the perspiration of a working man, and I think it is this that was objectionable to the babies, and the little scheme was a failure although we tried it conscientiously in cases of malnutrition, diarrhoea, and other diseases. This is the information which I have to give you concerning goat's milk. It is not a practical infant food."—HENRY KOPLIK, M.D., College of Physicians and Surgeons, New York City, N. Y.

"I have never found that goat's milk was of any advantage in infant feeding, notwithstanding the various claims which are put forth by those particularly interested in its sale.

"The only instance in which it is of any particular value is where the child has an anaphylactic reaction to cow's milk. In such cases, I have found it of considerable value, otherwise, it has no marked value over cow's milk which is certainly more easily controlled as to production and sale than the ordinary goat milk supply."—WILLIAM PALMER LUCAS, M.D., *Professor of Pediatrics*, University of California.

"I feel quite as you do that the literature on the subject of the superiority of goat's milk over cow's milk is quite insufficient to warrant the statements that are made by those interested in the production of goat's milk. I have had no personal experience, and therefore I hardly feel qualified to express my opinion. I do know that in certain instances in which the infant is susceptible to cow's milk, goat's milk has been very satisfactorily used. On the other hand, I feel that very few nutritional disturbances can be treated more satisfactorily with goat's milk than with cow's milk. I regret that I can not give you more definite information."—KENNETH D. BLACKFAN, M.D., *Professor of Pediatrics*, Harvard Medical School.

"The advantages of goat's milk that might be cited are that the goat produces more milk in proportion to the intake of food than does the cow and then the goat does not develop tuberculosis as readily as does the cow. The goat, however, is not immune to tuberculosis and inasmuch as pasteurization and boiling of cow's milk for other reasons is considered a necessity of safety, the relative freedom of the goat from tuberculosis really is of no practical value.

"In the *Jahrbuch für Kinderheilkunde Band*, 102, Heft 5, page 257 and also Heft 6, page 357, Dr. E. Brouwer of Holland reports the result of a rather extensive study of the role played of goat's milk in the production of an anemia. This author maintains that a very high percentage of children who are fed with goat's milk develop this anemia. The report of his work is to be completed in the next number of the *Jahrbuch*, but as far as he has gone, his conclusion regarding the value and necessity of goat's milk in the feeding of infants will unquestionably be adverse.

"In the *Zeitschrift für Untersuchung der Nahrungs und Genüssmittel*, Volume 15, page 13, K. Fischer points out that goat's milk has a peculiar pallor which is also characteristic of butter made from goat's milk. He suggests that the food which the goats get is responsible for this. I imagine there is some truth in this statement because it is now well known that there is a difference between milk and milk, mainly depending upon the kind of food which the animal producing the milk receives from the products.

"You will find a detailed analysis of goat's milk in *Czerney-Keller*, Volume I, page 446.

"In the *Münchner med. Wochenschrift*, 1922, page 4, W. Stoeltzner also writes an article regarding the anemia produced by feeding with goat's milk."—H. J. GERSTENBERGER, M.D., *Professor of Pediatrics*, Western Reserve University.

"The vital question is whether goat's milk possesses any great advantages over cow's milk for infant feeding. A year and a half ago a supply of goat's milk was furnished to the Babies' Hospital, of which I am physician-in-chief, by the New York Health Department. We had an opportunity to test its value in difficult feeding cases for nearly an entire year. As a result of this experience the opinion was a unanimous one in the minds of all the physicians who watched the cases that goat's milk possesses no advantages over cow's milk. The infants who did well on modifications of cow's milk did equally well on modifications of goat's milk, but there was no single instance of an infant who did badly on cow's milk who showed any definite improvement when changed to goat's milk. The infants were under close daily observation at the time the goat's milk was being used."—L. EMMETT HOLT, M.D., *Professor Diseases of Children*, New York City, N. Y.

"It is probably true that goats are less susceptible to tuberculosis than are cows, and that therefore goat's milk is less likely to transmit tuberculosis than is cow's milk when fed raw. Inasmuch as all cow's milk fed to babies is, or should be, pasteurized or boiled, and as this destroys any tubercle bacilli which may be present, the advantage of goat's milk over cow's milk in this particular is not an important one.

"There is an occasional infant who is sensitive to cow's milk and develops anaphylactic phenomena when given even the smallest amount. Such children have to be fed for a period on the milk of some other animal, and goat's milk is that usually selected. Cases of this type are extremely rare. Probably not more than one infant in ten thousand is sensitive to cow's milk. I know of no other advantage of goat's milk over cow's milk than those above mentioned. Every conceivable variety and modification of milk has been advocated for infant feeding, and each has its staunch advocates. There is often little or no scientific basis for the claims advanced and I feel that goat's milk is to be included in this category."—MCKIM MARRIOTT, M.D., *Physician-in-Chief*, St. Louis Children's Hospital.

"Answering your letter regarding goat's milk, it has approximately the same composition as cow's milk and has no special advantage over cow's milk as an article of diet in the artificial feeding of infants, especially if the cow's milk is pasteurized; as goats are practically immune to tuberculosis, unpasteurized goat's milk is safer than milk from non-tuberculin tested cows. Some children who have an idiosyncrasy to cow's milk can handle goat's milk.

"Goat's milk has a smaller fat globule and the mulsion is more constant, the fat separating far less readily. This is of advantage in cases that do not handle the larger fat globule of cow's milk.

"Dr. Calvin, whose article is enclosed, is associated with me and I think you can obtain such references as desired from this literature.

"Also, from an economical standpoint, it would probably be cheaper for families with a small acreage to keep a goat than a cow, but aside from these advantages, goat's milk is not superior to cow's milk for infant feeding—except in a few specially selected cases."—JULIUS H. HESS, M.D., *Prof. Ped. and Clin. Ped.*, U. of Ill., Chicago, Illinois.

"It happens that I, myself, have a small herd of goats at my home and I have found that the milk is very easily digested as compared with cow's milk. In fact, I have always been one of those who has felt that cow's milk did not agree with me. To my very great surprise, goat's milk has never caused the slightest distress even though I have put it to very severe tests, such as drinking three very large glasses, one after another.

"Just a word in estimating the relative value of the two milks. When a child's digestion is badly deranged, it not infrequently happens that no milk unless fundamentally modified will act as a cure. Again, people class together the milk from all varieties of goats. The Nubian is said to give the richest milk and as there are many infants who have difficulty in digesing fat, they could easily be harmed by milk of this variety. Finally, goat's milk must be properly modified just as must the milk of the cow in the

artificial feeding of infants. Therefore, only the most carefully controlled experiments will be able to answer the question which you put in your letter."—ALBERT H. BYFIELD, M. D., *Professor of Pediatrics*, State University of Iowa.

"I do not believe that goat's milk is superior to cow's milk in any way for infant feeding. The analysis of goat's milk is no nearer that of human milk than is that of cow's milk. In order to be a suitable food for infants, it must be modified in some way, just as is cow's milk.

"It probably was true in the past, in those countries in which goat's milk was commonly fed, there was less danger of infection with tuberculosis from goat's milk than from cow's milk. In this country, however, where milk is properly produced and generally pasteurized, there is no more danger of infection with tuberculosis from cow's milk than from goat's milk.

"I have occasionally fed babies on goat's milk where people were so situated that it was more convenient for them to get and use goat's milk than cow's milk. Babies fed in this way have done as well, but no better, than babies fed on cow's milk."—JOHN LOVETT MORSE, M.D., *Professor of Pediatrics*, Harvard University.

"Your letter mailed October 19th just received. Goat's milk bears a slightly closer resemblance to human milk than does cow's milk, but in the feeding of goat's milk to infants the milk has to be modified just as the cow's milk has to be modified. In my experience, goat's milk in this country is very difficult to procure and it is also extremely difficult to obtain goat's milk that has been produced according to modern scientific methods as in the best dairies where cows furnish the milk.

"Before the war there was in Philadelphia one farm where they produced first-class goat's milk but I believe that this place has passed out of existence, as I have not heard anything about it during the last two or three years. In certain countries, as in Italy, goat's milk is very largely used.

"My personal opinion is that in this country where the cows are so carefully watched and tested and where the production of cow's milk has been standardized, that it is very much wiser and safer in the large majority of cases to feed babies on cow's milk.

"If, however, any individual or a number of individuals could develop farms where goat's milk could be supplied on the same standard as that now demanded by cow's milk, I believe it would be of advantage as it would give us an opportunity of using goat's milk and to more closely study goat's milk and it is also quite possible that we might find it advantageous in some of our very difficult feeding cases."—EDWIN E. GRAHAM, M.D., *Professor of Dis. Child.*, Jefferson Med. School, Philadelphia, Pennsylvania.

"In reply to your letter I beg to advise that there are no advantages in goat's milk over cow's milk produced in the same way. The goat is less susceptible to tuberculosis than is the cow. On the other hand the goat's milk is much stronger in odor than is cow's milk. With the laws requiring the tuberculin testing of cattle the question of the transmissibility of tuberculosis through cow's milk is practically nil, and as it is much more palatable than goat's milk there can be no advantage in a goat's milk over a cow's milk. In so far as the comparative digestibility is concerned the goat's milk has no advantage over the cow's milk. Personally, I have never seen an instance in which goat's milk could be given that cow's milk could not have been given if properly modified. I see no reason, however, why the milch goat industry could not also develop. I must insist that the goat's milk is not superior to cow's milk."—L. R. DE BUYS, M.D., *Clin. Prof. Ped.*, University of Tulane, New Orleans, Louisiana.

"Analyses of goat's milk seem to show that it resembles human milk more closely than does cow's milk. Moreover, goats are not subject to tuberculosis and the cost of maintaining them seems to be less per liter of milk than in the case of cows. On the other hand, goats develop a disease which is transmitted to human beings through the milk and has been termed "malta fever." Furthermore, of late there have been reports of "goat milk disease" occurring in infants who were fed on this milk. The nature of this disorder has not been clearly defined and may well be associated with the particular diet of the goats. Indeed, it has seemed to me that the fact that goats show so little discretion in their diet, and can be maintained on fodder which is entirely inadequate, constitutes a danger in using their milk for infants, and renders it especially necessary

to supervise their dietary. We know that a great many of the valuable principals of milk are dependent upon the food and, therefore, we cannot generalize as to the milk of one animal being absolutely superior to that of another."—ALFRED F. HESS, M.D., *Clin. Prof. Ped.*, New York City, N. Y.

"There is no advantage in goat's milk over cow's milk unless it may be in cases of sensitization to cow's milk. There seems to be a business enterprise on foot to boost goat's milk. I think very few of the men are using it excepting as indicated."—DAVID MURRAY COWIE, M.D., *Assoc. Prof. Ped. and Inter. Med.*, Ann Arbor, Michigan.

"There are several things to be urged against goat's milk as an artificial food for infants. In the first place, there is entire lack of familiarity with the peculiarities of goat's milk on the part of the medical profession. This represents a very serious difficulty. If you will look in some recent issues of the *Jahrbuch für Kinderheilkunde* you will find a series of articles on anemia developing from the use of goat's milk. This anemia is apparently rather severe. So far as I know, goat's milk is not superior to cow's milk except that it seems to be more free from the danger of tubercle bacilli contamination. I feel that the effort on the part of certain interested individuals to develop goat's milk as a food for babies is entirely misplaced and may be even said to be a menace if carried too far."—CLIFFORD G. GRULEE, M.D., *Asst. Prof. Med.*, Rush Medical College, Chicago, Illinois.

"There is no great advantage in using goat's milk over that of cow's milk. As a rule, children who can take care of one will take care of the other. I do not believe that the goat lends itself so well for the commercial production of milk and probably for economic reasons the cow will continue to be the milk-producing animal.

"The advantages claimed for the use of goat's milk are:

"1. The goat is less susceptible to tuberculosis.

"2. In some respects the goat is cleaner. Her offal being small and dry, it consequently does not tend to contaminate the udder and the milk supply.

"I think it is also true that occasionally a child may be sensitive to cow's milk and show anaphylactic reactions, though the same does not apply to goat's milk.

"Goat's milk for babies is an age-old story and is revived at intervals, though it has always failed of universal adoption."—I. A. ABT, M.D., *Prof. of Ped.*, Chicago, Illinois.

"I do not know any evidence which shows that goat's milk is better than clean cow's milk. Goat's milk has been used a good deal in countries, like Spain and Cuba, where there is little ice, for the reason that the goats could be driven to the houses and milked there and the milk was, therefore, fresh. Without adequate sterilization and pasteurization goat's milk was also safer than cow's milk on account of the rarity of tuberculosis in goats. That goat's milk is better than clean cow's milk which has been pasteurized, seems to me unlikely, but, as I say, I have no specific knowledge regarding it, and I do not know whether there is any in literature.

"Czerny, the pediatrician, when he was in Breslau in charge of the Children's Department there, had a herd of goats for feeding some of the infants, but when I knew him in Strassburg, although plenty of money was available, he did not have any goats. I imagine that he was convinced there was no necessity for keeping a herd.

"I am sorry that this is all the information I can give you."—JOHN HOWLAND, M.D., *Pediatrician-in-chief, Prof. of Ped.*, The Johns Hopkins Hospital.

"Your letter of the 19th instant has just come to hand, in which you ask about the quality of goat's milk. From a chemical point of view, analyses would indicate that the two varieties of milk run so *nearly* similar that there is no particular advantage in one over the other. The slight excess of casein in goat's milk over cow's milk, according to the analysis in Richmond's *Dairy Chemistry*, perhaps accounts for its tendency to form a firmer clot. The difficulty in getting the goat's milk free from odor has also been a point against goat's milk. The freedom from tuberculosis, which I believe is claimed for goats (although I have no personal knowledge on this point), is an advantage, of course, if it is true. I do not myself see any reason at all to favor the employment of goat's milk in preference to that of the cow on the ground of any superiority. There are occasions, certainly, where it would be very helpful to be able to get goat's milk. I refer particularly to where the infant shows an anaphylactic inability

to take cow's milk prepared in any way. I have had these cases a number of times, and have wished that the obtaining of goat's milk in this vicinity were an easier matter. These cases are, however, rare."—J. P. CROZER GRIFFITH, M.D., *Prof. of Ped.*, U. of Pa. School of Medicine, Philadelphia, Penn.

"In reply to your letter concerning the use of goat's milk in infant feeding I would state that I have personally had a rather limited experience with it. As you know, its composition is not very different from that of cow's milk and it may be substituted for cow's milk in feeding both normal and sick infants. The cream rarely rises on goat's milk and on account of the extreme smallness of the fat globules, renders the food more digestible particularly for infants with weak digestive powers.

"The goat is rarely infected with tuberculosis so that it is a safe milk to use from the standpoint of this disease. It should be borne in mind, however, that the goat in certain regions is apt to be infected with B. melitensis and while it does not seem to harm the goat, the disease may be transmitted to man by drinking the unboiled milk. As far as I know there is little or no Mediterranean Fever in the United States so this would only apply to places where it existed.

"The chief use of goat's milk in infant feeding is in children who are sensitized to cow's milk and who cannot be fed on it. Goat's milk for these children is a wonderful food.

"There are some evaporated goat's milks on the market which are useful where fresh goat's milk cannot be obtained."—JOHN RUHRAH, M.D., *Prof. of Pediatrics*, U. of Maryland, Baltimore, Maryland.

"This question comes up perennially and is never kept up, so far as I can see, only by laymen and lay writers and by the Wideman people of California. I do not believe that there is one iota of evidence that goat's milk is better for babies than cow's milk, under similar circumstances. It is wholly unfair to compare condensed goat's milk with fresh cow's milk as is often done clinically. Of course, condensed goat's milk is easier to digest than fresh cow's milk, but condensed cow's milk is equally so. There is, to my knowledge no scientific evidence that goat's milk is superior *per se*."—Jos. BRENNEMANN, M.D., *Asst. Clin. Prof. Ped.*, Northwestern Med. School, Chicago, Illinois.

SUPPLEMENTARY REPORT

September 25, 1924

President David Kinley, 355 Administration Building
DEAR PRESIDENT KINLEY:

At your request I resubmitted to the Committee on Milch Goats the points raised in the Board of Trustees with reference to the conclusions of the former report of this committee, contained in your communications. I am transmitting herewith their supplementary report together with a letter from the chairman of the committee.

In the light of the facts presented by the committee, it is clear that their former report was justified and well within the facts. With the report of the committee in mind, I do not feel justified in recommending the establishment of a herd of milch goats at the University, knowing that it would need to be done at the expense or curtailment of important lines of work already established.

Very truly yours,
H. W. MUMFORD

September 25, 1924

Dean H. W. Mumford, 100 New Agricultural Bldg.
MY DEAR DEAN MUMFORD:

I am submitting herewith three copies of the supplementary report of the milch goat committee. After carefully weighing the facts regarding the various questions and notations your committee finds no new information bearing on the solution of the problem to cause it to in any way change the original conclusions and recommendations embodied in its previous report.

In a few instances additional facts are presented in an attempt to clarify some of the questions raised.

Professor Kammlade, though familiar with the report, left town before I obtained his signature.

Very truly yours,
W. W. YAPP

Your committee appointed to study milch goats with special reference to their addition to the herds and flocks of the University of Illinois has reconsidered its report as originally submitted, December 16, 1923. In the reconsideration of this report the committee has taken cognizance of certain questions, suggestions, and special literature handed to the committee at the time of the request for the reconsideration of the question.

After careful study of the facts at hand your committee does not wish to change or modify its report as originally presented. It does, however, wish to supplement the same to more fully answer certain of the questions and statements submitted.

The statements to which the committee has given special attention are:

1. Malta fever is not more likely to be contracted from goat's milk than from cow's milk.
2. The consumption of milk is too low. Should be increased.
3. Great need for increased milk supply and facilities for supplying same.
4. The distance is becoming too great between the consumer and source of his milk supply.
5. University promotes industries, why not promote this one?

I. Recent work by Alice C. Evans of the United States Public Health Service produces further evidence of the close similarity between Bang's Bacillus abortus which produces infectious abortion in cattle and the Micrococcus melitensis of Bruce which causes Malta Fever by infection of man through goat's milk. The Bacillus abortus has been found in a considerable percent of samples of cow's milk examined by numerous investigators. It seems an undisputed fact that this organism of cattle is, in certain instances, pathogenic for man. Circumstantial evidence points strongly to human infection with Malta Fever through cattle but the facts available are not such as to warrant the conclusion, at present, that cow's milk ingested raw and contaminated with the Bacillus abortus is as likely to be followed by Malta Fever as the drinking of milk from a goat infected with the Micrococcus melitensis. The same evidence that shows similarities between these infections in man points strongly to the conclusion that the bovine type produces a much milder infection than the caprine.

II. From a dietary standpoint there is little doubt but that a larger average consumption of milk per capita would react toward an improved nutritional condition. This is especially true of the younger generation, particularly the smaller children. It must remain a question, however, whether or not goat's milk would prove any considerable factor, either from a practical or economic standpoint, in alleviating this condition.

III. It can hardly be said that the limited consumption of milk is due to the lack of an actual or potential supply of fluid milk. Plate No. 1 taken from an unpublished manuscript of the Department of Dairy Husbandry graphically pictures the general territory which now supplies fluid milk to the city of Chicago. Aside from a considerable number of bottling plants just outside the can-shipping zone and a few bulk receiving stations still farther out, the great majority of Chicago's present milk supply comes from within the outer limits of the can-shipper zone.

The potential supply is clearly pictured in plate No. 2 which gives the production of milk by counties in the territory which could supply milk to the city, but a large portion of which is at present prevented from doing so because of the price offered. It can be readily seen from this chart that the potential supply is such that the total supply to the city could be very largely increased, in fact, almost doubled, if proper transportation facilities were offered and a price paid sufficiently high to attract the more distant producers.

The advent of tank cars so well insulated that they can retain a uniformly low temperature for several hours tends to solve the transportation problem. The demand will undoubtedly determine the supply.

It would appear from this study that the present available supply of cow's milk, at least so far as the Chicago territory is concerned, is adequate to meet the needs of the city even under conditions of a greatly increased demand.

IV. Since February 12, 1852, when Phineas H. Smith shipped his first can of milk to Old City Hall in Chicago, there has been a remarkable extension of the zone supplying whole milk to the city. There is little doubt but that the longer the interval between the time milk is produced and consumed, other factors remaining constant, the less desirable it becomes. It is also equally true that our improved methods of pro-

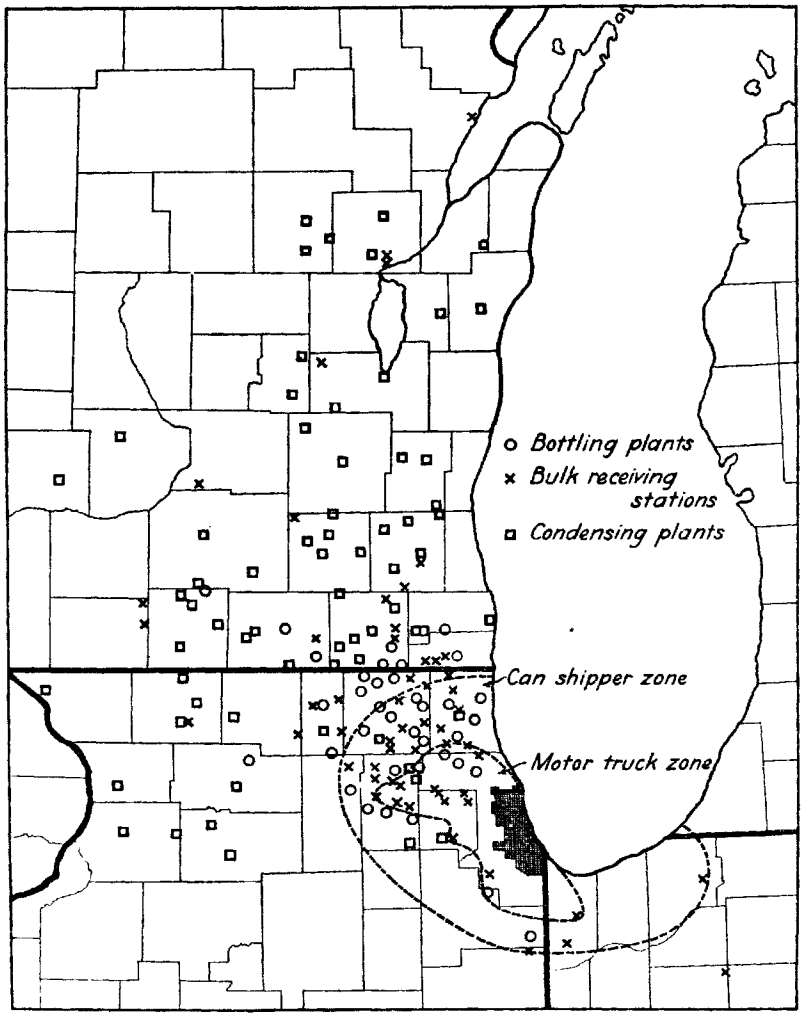

Plate I.

duction, transportation, pasteurization, etc., tend to reduce the importance of the above condition and make it possible to supply desirable and safe milk under present conditions of production.

While it is physically possible to maintain goats nearer the source of the consumption of their milk than cows it is a grave question as to whether or not it would prove either economical or safe to have an extensive production of milk under such conditions.

V. The important question which was uppermost in the minds of the members of your committee during the preparation of the original report was:

"Everything considered, is the milch goat an animal of sufficient economic importance to justify its addition to our already over-burdened investigational program?"

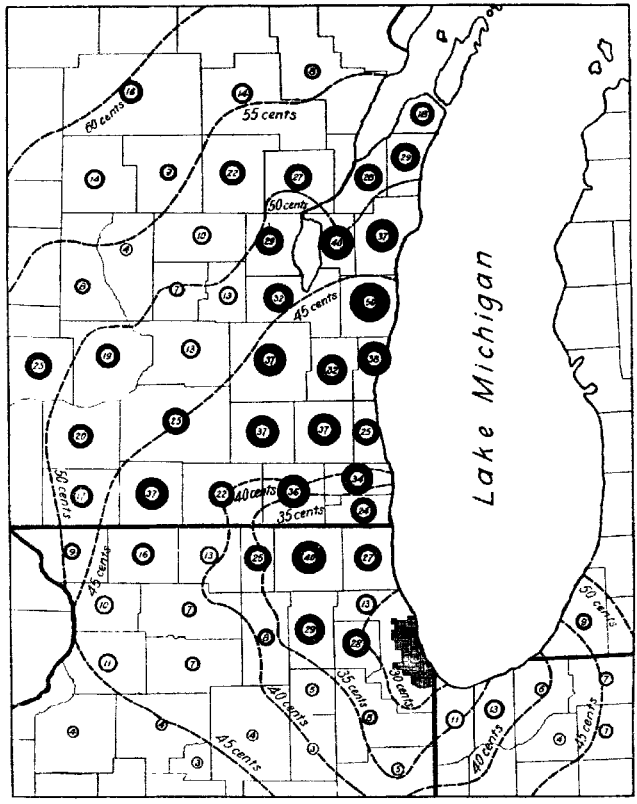

Plate II.

Figures in circles—number of gallons milk produced per sq. mile in 1919.
Table compiled from 1920 census report United States Department of Agriculture.

The same question confronts the members of your committee at the present time.

Your committee, in all fairness and in light of the information which it has been able to obtain after reconsideration of the entire problem, finds no occasion to differ from the original conclusions and recommendations embodied in its report of December 16, 1923.

Respectively submitted,
W. W. YAPP
HENRY B. WARD
L. A. ADAMS
J. HOWARD BEARD
Members Committee

On motion of Mrs. Blake, this report was accepted.

APPROPRIATION OF AGRICULTURAL BALANCES

(2) Dean Mumford requests the re-appropriation of a balance of last year's appropriation to the Department of Dairy Husbandry of $8,985.28 and one of $3,599.77 to the Department of Agronomy. The amounts have been carried in a separate ac-

count since lapsing until the need for them could be specifically determined. I recommend approval and ask that these re-appropriations be made.

On motion of Mrs. Evans, these appropriations were made, by the following vote: Aye, Mr. Armstrong, Mrs. Blake, Mrs. Busey, Mrs. Evans, Mrs. Grigsby, Mrs. Ickes, Mr. Noble, Mr. Trees; no, none; absent, Mr. Blair, Mr. Small, Mr. Trimble.

APPOINTMENT OF DEAN D. LEWIS

(3) Dean Eycleshymer recommends to me, and I recommend to you, the appointment of Dr. Dean D. Lewis, former Professor of Surgery in the University of Chicago, to the position of Professor of Surgery and Director of Research in the Department of Surgery in the College of Medicine, on three-fourths time, at a salary of $7,500 a year.

On motion of Mrs. Blake, this appointment was made.

APPOINTMENT OF PROFESSOR MARSHALL

(4) On recommendation of Dean Ketchum I have approved the appointment of Mr. Irvine Meredith Marshall as Assistant Professor of Mining Engineering for one year from September 1, 1924, at a salary of $3,000, this appointment to fill the vacancy caused by the declination of Professor T. M. Bains to accept reappointment.

This report was received for record.

DESTRUCTION OF FARM BUILDING BY FIRE

(5) Early in the morning of August 20, 1924, a barn on the South Campus operated by the Horticultural Department was struck by lightning and the building and contents were totally destroyed by fire.

The Supervising Architect estimates the total loss to be in the neighborhood of $1,000. The building itself had almost reached the limit of its period of usefulness.

This report was received for record.

ADDITIONAL INSTRUCTORS IN ECONOMICS

(6) The increased enrollment makes it necessary to provide additional instructors in Economics, and on request of the Dean of the College of Commerce I recommend that $2,200 be assigned from the Reserve and Contingent fund to the department of Economics for additional instructors.

This appropriation was made, by the following vote: Aye, Mr. Armstrong, Mrs. Blake, Mrs. Busey, Mrs. Evans, Mrs. Grigsby, Mrs. Ickes, Mr. Noble, Mr. Trees; no, none; absent, Mr. Blair, Mr. Small, Mr. Trimble.

ACCIDENT COMPENSATION 1923-24

(7) The Board on July 11, 1923, appropriated two thousand dollars ($2,000) to meet the claims for accident. The conduct of matters connected with accident compensation is in the hands of a committee appointed by me, consisting of Judge Harker, Mr. C. A. Petry (now replaced with Professor Gordon Watkins), and the Comptroller, Mr. Lloyd Morey. They have made the following report for the year 1923-24.

Department	No. of Cases	Amount of Claims	Amount Allowed	Purpose of Allowance: Medical & Hospital Service	Purpose of Allowance: Wages for Time Lost	Purpose of Allowance: Compensation
Animal Husbandry...	5	$ 225 74	$ 212 14	$ 127 00	$ 85 14	
Agronomy.....	1	22 82	22 82	9 50	13 32	
Dairy Husbandry....	2	28 90	28 90	20 50	8 40	
Farm Mechanics.....	2	74 50	74 50	44 00	30 50	
Horticulture.....	2	107 30	107 30	81 50	25 80	
Civil Engineering....	1	17 00	17 00	7 00	10 00	
Mechanical Engineering.....	6	1 178 86	701 66	384 50	67 16	$ 250 00
Physics.....	1	31 50	31 50	7 00	24 50	
Print Shop.....	1	2 00	2 00	2 00	2 00	
Woman's Residence Hall.....	1	9 00	9 00	9 00		
Physical Plant.....	16	582 47	552 47	251 00	301 47	
	38	$2 280 09	$1 758 29	$943 00	$566 29	$250 00

This report was received for record.

CONTRACT WITH ST. ANTHONY'S HOSPITAL

(8) On recommendation of the Dean of the College of Medicine, I request approval of the following contract for affiliation with St. Anthony's Hospital of Chicago.

AGREEMENT

(In Duplicate)

THIS INDENTURE, Entered into this 1st day of October, 1919, between the Board of Trustees of the University of Illinois, a corporation, hereinafter called "the University," and the Hospital St. Anthony de Padua Hospital of Chicago, Illinois, hereinafter called "the Hospital."

WITNESSETH: I. *Clinical Clerks or Externes:* The hospital admits without fees and the University agrees to furnish as far as is consistent with its teaching activities a limited number of advanced students, who shall act as clinical clerks or externes and perform the duties devolving upon them as such. They shall take histories of cases and make all necessary physical and laboratory examinations under the direction and supervision of members of the hospital staff, who shall belong to the teaching staff of the University. They may also observe and assist as far as possible in operating on surgical cases and in the treatment and care of other cases under the constant supervision of the internes or staff members.

(2) *Internes.* The University will furnish to the Hospital as far as it is able to do so licensed internes in such numbers as the Hospital may desire.

(3) *Relation of Members of the Hospital Staff to the University.* The University agrees to appoint as members of its staff of Affiliated Hospitals, all physicians who are members of the Staff of the Hospital at the date of the beginning of this agreement. The Hospital agrees to appoint all new members of the Staff to fill vacancies or to fill new positions which may be created hereafter from candidates approved by the University.

(4) *Supervision of Internes and Externes.* The work of the Hospital internes furnished by the University shall be supervised by the members of the Hospital as shall be chosen by the University. Both internes and externes shall be done by such members of the staff of the Hospital as shall be chosen by the University. Both internes and externes shall conform to all rules of the Hospital. Records of efficiency of the internes and of the attendance and work of the externes shall be kept by such persons as shall be designatd by members of the Hospital Staff in conference with the Hospital Staff of the University.

(5) *Hospital Nurses.* The University agrees to furnish opportunities for instruction in anatomy on the cadaver in its medical college building to the nurses of the Hospital St. Anthony de Padua Hospital Training School for Nurses to the extent required for schools for nurses by the Department of Education and Registration. Nurses graduating from the Hospital St. Anthony de Padua Hospital Training School may be given their diplomas at the commencement exercises of the College of Medicine.

(6) *Financial Responsibility of the University.* The University shall not be responsible for any hospital expenses.

(7) This agreement shall be in force for one year commencing with the 1st of October subject to continuance beyond that time by mutual agreement.

In Witness Whereof, the undersigned, authorized officers of the parties, hereto attach their signatures as official representatives and the corporate seals of the representative parties.

THE BOARD OF TRUSTEES OF THE UNIVERSITY OF ILLINOIS

ATTEST: By_____
Its President

_____
Secretary

THE HOSPITAL OF ST. ANTHONY DE PADUA OF CHICAGO, ILLINOIS

ATTEST: By SISTER M. ANNA, *Supt.*
SISTER M. BERNARDA *Its President*
Secretary

APPROVED:
COMMITTEE ON AFFILIATED HOSPITALS
C. S. BACON, *Chairman*

On motion of Mrs. Evans, this contract was authorized.

MEDICAL RESEARCH BUILDING

(9) In accordance with the request of the Supervising Architect, I request an appropriation of $2,500 from the Reserve and Contingent Fund to meet certain incidental and unexpected expenditures in getting the Medical Research building ready for use, as explained by the Supervising Architect.

On motion of Mrs. Grigsby, this appropriation was made, by the following vote: Aye, Mr. Armstrong, Mrs. Blake, Mrs. Busey, Mrs. Evans, Mrs. Grigsby, Mrs. Ickes, Mr. Noble, Mr. Trees; no, none; absent, Mr. Blair, Mr. Small, Mr. Trimble.

COOK COUNTY EXPERIMENT STATION

(10) A recommendation that the $25,000 appropriated by the last General Assembly for the Cook County Truck Garden Experiment Station be appropriated to the Agricultural Experiment Station for use in carrying out the work for which the money was appropriated by the General Assembly.

This appropriation was made by the following vote: Aye, Mr. Armstrong, Mrs. Blake, Mrs. Busey, Mrs. Evans, Mrs. Grigsby, Mrs. Ickes, Mr. Noble, Mr. Trees; no, none; absent, Mr. Blair, Mr. Small, Mr. Trimble.

ESTATE OF SAMUEL HARE

(11) The Board of Trustees of the University of Illinois was named heir at law and legatee in the will of the late Samuel Hare of Ford County. In accordance with the practice in such cases the Board of Trustees by its President, Dr. Noble, at my suggestion, entered its appearance and waived notice, and consented to the probate of the will of said Samuel Hare on August 11, 1924.

This report was received for record.

AUTOMOBILE TRAFFIC ON CAMPUS

(12) A request from the Supervising Architect for authority to install a semaphore system to prevent the movement of automobiles on the campus in the ten-minute intervals between classes.

This matter was fully discussed, and Professor White made a statement concerning it.

On motion of Mr. Trees, it was voted (1) to prohibit the parking of automobiles on the campus within hours and boundaries to be determined, and (2) to prohibit the movement of automobiles on the campus during the ten-minute intervals between classes and from 11:50 a. m. to 12 m. The use of a semaphore system for this purpose was approved.

RESEARCH GRADUATE ASSISTANTSHIPS IN CERAMIC ENGINEERING

(13) The Titanium Alloy Manufacturing Company of Niagra Falls, New York, has established a research graduate assistantship for two years from September 1, 1924, for certain investigations on a subject of great importance to the ceramic industry.

This report was received for record.

CONTRACTS EXECUTED BY THE COMPTROLLER SINCE JULY 9

(14) A report from the Comptroller showing contracts and leases executed by him from July 9 to Sept. 23, 1924.

LEASE CONTRACTS EXECUTED UNDER GENERAL REGULATIONS REGARDING CONTRACTS

Leased by the University to others: (1)

Property	*Rental*	*Date*	*Tenure*	*Lessee*
1758 W. Polk St., First Flat..	$407 16 (term)	5-12-24	4-30-25	John McCabe
1758 W. Polk St., Top Flat..	450 00 (term)	5-1-24	4-30-25	J. P. Faurie
1756 W. Polk St., First Flat..	305 00 (term)	6-25-24	4-30-25	Jennie Greco and Clemente Greco
1756 W. Polk St., Second Flat	360 00 (term)	5-1-24	4-30-25	Katherine Walter
1745 Flournoy St., First Flat	210 00 (term)	7-1-24	4-30-25	Elmer Scheideman
1745 Flournoy St., Top Flat.	264 00 (term)	5-1-24	4-30-25	Simon Block
1117 S. Euclid Avenue.....	55 00 (month)	9-1-24	5-30-25	John A. Hughes
1118 S. Third St.....	75 00 (month)	9-1-24	5-30-25	S. A. Casper
1117 S. Arbor.....	75 00 (month)	9-8-24	5-30-25	Mrs. Henry Aden
1117 S. Third St.....	75 00 (month)	9-1-24	5-30-25	W. L. Harris
1118 S. Williamson St.....	70 00 (month)	9-1-24	5-30-25	F. L. Goldsmith
1118 S. Arbor.....	55 00 (month)	9-8-24	5-30-25	Robert Faullin
1207 W. Stoughton.....	45 00 (month)	9-22-24	6-30-25	E. A. Glenn
Leased by the University from others:				
House and Lot on Maple Avenue (Renewal).....	300 00 (year)	8-15-24	82-5-25	Mrs. A. M. Lego

Contracts specifically approved by the Board of Trustees:

Name	*Amount*	*Date*	*Tenure*	*Item*
Jacob Reed's Sons.....	$30 00 Uniform	9-15-24	6-15-25	All R.O.T.C. Uniforms for Advanced Courses

This report was received for record.

C.P.A. CERTIFICATES

(15) A recommendation that the certificate of Certified Public Accountant be awarded to the following persons who successfully passed the C. P. A. examinations held on May 15 and 16, in accordance with the recommendation of the Board of Examiners and the Committee:

GUSTAF A. ALSTERLUND
FRANCIS MERRILL BEATTY
EMIL FREDERICK BOHNE
WILLIAM THOMAS BRENNEN
JOSEPH CHARLES BRONARS
DANIEL A. BROPHY
PATRICK JOSEPH CARTER
NAT J. COGEN
NED HALL CONNELLY
JOSEPH EDWARD COOKSON
HARRY M. COUCH
NELSON G. CULP
JOHN FRANK DANIELSON
MARION ROSS DAVIS
HAROLD DEBAUN
RALPH PARSONS DESWARTE
RAY ROBINSON DOBSON
ALEXANDER EULENBERG
HAROLD BAKER EVERSOLE
LURTON EUGENE FELTON
AUBREY CLEVELAND FLOOD
EDWARD MERN FOSTER
CARL ARVID FRYXELL
WILLIS DONALD GALE
ALESANDER R. GRANT
REINHARDT GEORGE JAHN
WILLIAM PUTNAM HAUWORTH
HERBERT OSWALD HINCKS
JOHN WALTER JOLLY
WARREN H. KELLER
VINCENT MICHAEL KELLY
WILLARD W. KELSEY
ARTHUR LINCICOME
RUBERT JOHN LINDQUIST
JOHN VICTOR MCGOVERN
JOHN JAY MCKEAGUE
JOHN M. MADER
CHRIS MOORE MARTIN
BEN STANTON NAVEN
WILLIAM OTTO OLSON
EDWIN CHARLES OWENS
JAMES LEONARD PENNY
WILLIAM PESMEN
WELDON POWELL
WILLIAM A. ROMANEK
DILLON LEWIS ROSS, JR.
SAMUEL ROTTMAN
ABRAHAM HARRY RUSSMAN
JOSEPH RONALD SCHULZ
PAUL DOTRENGE SEGHERS
DANIEL EDWARD SHEEHAN
LAVERNE JAY SMITH
RUSSELL CLAUDE SWOPE
PAUL CANADAY TAYLOR
WILLIAM LAWTHER VERNON
CYRIL AMBERG WARD
JOHN PHELPS WILLIAMS
FREDERICK CHARLES YANOWSKY
FRANK JOSEPH ZINK

On motion of Mrs. Grigsby, these certificates were awarded.

SCHOLARSHIPS AND FELLOWSHIPS IN THE ECONOMICS OF PUBLIC UTILITIES (OTHER THAN STEAM RAILROADS)

(16) Seven Public Utility Companies of the State have jointly offered the University $5,000 a year for five years, beginning September 1, 1924, for graduate scholarships and fellowships to be given to students nominated by the Dean of the College of Commerce and approved by the other regular authorities for the study of public utilities in the field of administration.

This gift has been made subject to the regulations of the University governing such matters and accords in all respects with our practice. Therefore, I have accepted it and am reporting the matter for record. The Comptroller has the checks.

This report was received for record.

APPROPRIATION FOR LAND PURCHASES

(17) The Superintendent of Business Operations asks an appropriation for $312.50 to pay the commissions and other expenses connected with the purchase of the Lloyd and Martin houses and lots in College Place.

I recommend that the appropriation be made from the Reserve and Contingent Fund.

This appropriation was made, by the following vote: Aye, Mr. Armstrong, Mrs. Blake, Mrs. Busey, Mrs. Evans, Mrs. Grigsby, Mrs. Ickes, Mr. Noble, Mr. Trees; no, none; absent, Mr. Blair, Mr. Small, Mr. Trimble.

OPTION ON ALLEN PROPERTY

(18) The Superintendent of Business Operations, Professor James M. White, recommends that the University accept the following option for the purchase of the Allen property on the south side of Gregory Avenue in College Place. This is the only remaining piece of property which we have to acquire south of Gregory Avenue to complete our possession of the entire strip facing Gregory Avenue, between First and Fourth Streets. The option is as follows:

OPTION

KNOW ALL MEN BY THESE PRESENTS, That Olie Allen and Mollie Allen of the City of Champaign, County of Champaign, and State of Illinois, for and in consideration of the sum of One Dollar ($1.00) in hand paid at or before the ensealing and delivery of these presents by the Board of Trustees of the University of Illinois, of the city of Urbana, County of Champaign, and State of Illinois, have agreed and do hereby agree to hold until the first day of November, 1924, at twelve o'clock noon, time being the essence and important part of this option, subject to the order of the Board of Trustees of the University of Illinois, and to contract to assign and transfer to the said Board of Trustees of the University of Illinois, or such person or persons as they may direct, at any time within the time above prescribed, the following described property: Lot One Hundred Sixty (160), College Place, Champaign, Illinois, for a consideration of Eight Thousand Seven Hundred Fifty and no/100 ($8,750.00) Dollars, the cash to be paid to the grantors when the Board of Trustees of the University of Illinois is given possession of the property, which shall be prior to May 1, 1925.

The Board of Trustees of the University of Illinois agrees to pay the balance of the street lighting assessment of about Fifty Dollars ($50.00) and to assume the 1924 taxes.

The grantors agree to furnish an abstract of title brought down to date of transfer showing merchantable title.

Dated at Champaign, Illinois, this 19th day of September, 1924.

OLIE ALLEN
MOLLIE ALLEN

The price, $8,750, is reasonable for the house and lot. The Comptroller agrees with the Superintendent of Business Operations on this matter, as do I, myself. I recommend approval and authority for the Comptroller and Secretary of the Board to accept this option.

On motion of Mr. Evans, this option was accepted.

RADIO BROADCASTING LICENSE

(19) The American Telephone and Telegraph Company own certain patents used in radio broadcasting. In order to avoid infringement of those patents we should have a license from them. They offer us one for one dollar, which is a nominal sum in order to make the contract technically and legally complete. I have authorized Professor White, in conjunction with the Comptroller, to make the necessary arrangements.

This report was received for record.

UNIVERSITY EXHIBIT AT THE PRODUCTS EXPOSITION

(20) The Illinois Chamber of Commerce is to conduct an exhibit of Illinois products in Chicago beginning early in October. We have been asked to make an exhibit. This is similar to the exhibit formerly known as the Pageant of Progress, as I understand the matter, and I recommend that the University participate, and that an appropriation of $1,000, or so much thereof as is needed, be assigned from Reserve and Contingent Fund to the Supervising Architect to meet the expense of this exhibit.

On motion of Mr. Armstrong, this appropriation was made, by the following vote: Aye, Mr. Armstrong, Mrs. Blake, Mrs. Busey, Mrs. Evans, Mrs. Grigsby, Mrs. Ickes, Mr. Noble, Mr. Trees; no, none; absent, Mr. Blair, Mr. Small, Mr. Trimble.

BUILDING FOR BLACKSMITH SHOP

(21) The Supervising Architect informs me that we must move the barns and blacksmith shop just west of Fourth Street on the Stadium site. He states that the new buildings which we are creating for Agriculture will practically replace the barns, although he thinks that we shall have to leave a garage on the premises and build a shelter where cattle in quarantine can be kept on the south farm. He asks an appropriation of $2,000 for the erection of the building for the purpose indicated and I recommend the appropriation from the Reserve and Contingent Fund.

On motion of Mrs. Evans, this appropriation was made, by the following vote: Aye, Mr. Armstrong, Mrs. Blake, Mrs. Busey, Mrs. Evans, Mrs. Grigsby, Mrs. Ickes, Mr. Noble, Mr. Trees; no, none; absent, Mr. Blair, Mr. Small, Mr. Trimble.

PURCHASE OF THE ELLS LAND

(22) A statement concerning the purchase of the Ells land (See minutes, July 9, 1924, page 5).

The Executive Committee made the following report on this matter.

The Board of Trustees, University of Illinois:

Your Executive Committee was authorized on July 14, 1924, to purchase what is known as the Ells land, at the price of $850 an acre, on condition of securing a deed from Carrie M. Hodges, Marjorie Hodges, and Harry Ells, and their respective husbands and wives, if any.

We beg leave to report that we have been unable to conclude such purchase under the terms of the authorization for the reason that Harry Ells has not yet executed, or indicated his willingness to execute, such a deed.

Your committee represents that it has secured from Carrie M. Hodges and Marjorie Hodges an option for the purchase of said land, a copy of which is hereto attached. Your committee recommends that the option heretofore made be accepted and that the said land be purchased at the price of $850 per acre, provided a satisfactory deed be executed and accompanied by an abstract showing the title to be perfect.

W. L. NOBLE, *Chairman*
LAURA B. EVANS
MERLE J. TREES
Executive Committee

OPTION FOR THE SALE OF REAL ESTATE IN THE STATE OF ILLINOIS

In consideration of One Dollar ($1.00), receipt whereof is hereby acknowledged, we the undersigned, hereby agree to give to the Board of Trustees of the University of Illinois the option to buy the following described real estate in the County of Champaign, State of Illinois, to-wit:

All of the North half of the North East Quarter lying east of the Illinois Central Railroad, in Section twenty-four (24), Township nineteen (19) North Range eight (8) East of the 3rd P. M.

Said Board of Trustees of the University of Illinois shall have the right to close this option at any time within ninety (90) days from date, and we agree to execute to it, or any person named by it, a good warranty deed to said real estate and to furnish thereof an abstract of title, showing said title to be perfect, upon demand thereof.

Upon execution of said deed and abstract, we shall be paid the sum of Eight Hundred Fifty Dollars ($850.00) per acre as full payment of the purchase price of said real estate.

WE FURTHER AGREE neither to sell nor incumber said real estate during said term of ninety (90) days.

Dated at Los Angeles, California, this twelfth day of July, nineteen hundred and twenty-four.

Attest: CARRIE M. HODGES (SEAL)
O. A. HARKER MARJORIE HODGES (SEAL)

On motion of Mrs. Busey, this report was accepted.

On motion of Mr. Trees, the option dated July 12, 1924, was accepted, and the Legal Counsel was instructed to proceed to close the purchase.

MOVING STEBBINS AND WALCOTT HOUSES

(23) A recommendation that $13,000 be appropriated to meet the expense of moving the Stebbins and Walcott houses to the north end of the Forestry, of repairing the buildings, and of furnishing the Walcott house. These houses are to be used as residences for women students.

On motion of Mrs. Evans, this appropriation was made, by the following vote: Aye, Mr. Armstrong, Mrs. Blake, Mrs. Busey, Mrs. Busey, Mrs. Evans, Mrs. Grigsby, Mrs. Ickes, Mr. Noble, Mr. Trees; no, none; absent, Mr. Blair, Mr. Small, Mr. Trimble.

LEGISLATIVE BUDGET, 1925-27

(24) A statement concerning the budget for 1925-27 to be presented to the next General Assembly.

Statements concerning college and departmental needs were made by Dean Eycleshymer (Medicine), Dean Day (Pharmacy), Dean Moorehead (Dentistry), Dean Chadsey (Education), Director Windsor (Library and Library School), Director Stiven (Music), Director Huff (Physical Welfare), Dean Harno (Law), Dean Ketchum (Engineering), Dean Mumford (Agriculture), Dean Thompson (Commerce), and Dean Babcock (Liberal Arts and Sciences).

GOLF CLUB

(25) A statement concerning the transfer of the University Golf Club to the department of Physical Education.

Mr. H. B. Ingalls, Secretary-Treasurer of the Golf Club, made a statement concerning this matter.

EAST TOWER OF UNIVERSITY HALL

(26) A statement from the Supervising Architect concerning the east tower of University Hall:

"On the 8th of August we had a heavy windstorm from the northwest which developed weaknesses in the masonry work of the east tower of University Hall. The supports under the south wall of this tower were poorly planned when the building was built and the southeast corner of the tower has always been weak. About fifteen years ago I did some shoring in the upper stories which relieved the situation, but due to the softness of the brick and the fact that the upper stories of the tower are open to the weather, a disintegration has been going on which has resulted in the present condition.

"I considered it an emergency situation and conferred with Professor Talbot about how best to make the structure safe as there was no doubt in my mind but that we ought to preserve the tower during the life of the building if it could possibly be done. A heavy steel column has been put up inside the southwest corner of the tower and we will immediately start transferring the loads from the upper floors on to this steel column. We will then cut into the wall and replace the defective masonry so as to make the structure safe.

"It is impossible to make an estimate on the cost of this work at the present time because I don't know how far we shall have to go, but it is going to be quite an extensive repair job. We may, however, be able to keep it within $6,000. I am charging this work to our building maintenance appropriation. To have torn the upper part of the tower down and to have re-roofed it and made the lower walls safe, would have cost at least half of this amount.

This report was received for record.

VALIDATION OF BONDS FOR PAVING STADIUM APPROACHES

(27) On June 9, 1924, the Board of Trustees authorized the signing of a document to validate the bonds on our paving improvements and contemplated a single document covering the paving of Fourth Street, First Street, and Stadium Drive. This work was let in three separate contracts and becomes three separate improvements. The city attorney of Champaign therefore requests that the Board of Trustees now approve the executing of three separate documents—one for each improvement rather than combining them all under one validation.

The officers of the Board were authorized to execute three separate documents to validate the bonds for paving the approaches to the Stadium.

CONTRACTS FOR AGRICULTURAL BUILDINGS

(28) A letter from the Supervising Architect:

President David Kinley, 355 Administration Bldg.

DEAR PRESIDENT KINLEY:

I enclose a list of bids received yesterday on the Dairy Barn, Swine Plant, and the Horse Barn.

It so happens that there is a different bidder low on each job so that the percentage deductions for combinations do not have any effect.

I recommend that the general contract for the Dairy Barn be awarded to Sowers & Corkery on the basis of their bid accepting the deduction of $12,000, for omitting the fourth wing, which makes their bid $43,000. We have not contemplated building more than the three wings, but took the figures on the basis of the completed structure for our own information.

The bids on the Swine Plant and the Horse Barn overran the appropriations of $20,000 each. It will therefore be impossible to award these contracts unless the Board approve the redistribution of the Agricultural College Building funds as recommended in the accompanying letter from Dean Mumford. If you will approve this redistribution (and I believe it is the wise thing to do), then I recommend the award of the general contract for the Swine Plant to Ellis Brooks for the sum of $15,985.00 and for the Horse Barn to King & Petry for the sum of $29,655.00.

The figure for the Horse Barn represents practically a completed structure,but the contracts for ventilation, lighting, plumbing, equipment, and fencing in connection with the Swine Plant will bring its total cost up above the present appropriation.

Yours truly,

JAMES WHITE
Supervising Architect

LIST OF BIDS SEPTEMBER 25, 1924—2:00 p. m.

Bidders	*Dairy*	*Swine*	*Horse*	*Swine Plant Horse Barn* Deduct	*Swine Plant Horse Barn Dairy Barn* Deduct	*Omit Wing 4 Dairy Barn* Deduct
Brooks, Ellis....		$15 985	$45 000	0	0	0
English Brothers.	$56 834	$19 473	32 439	1½%	2%	9 334
King & Petry....	56 148	17 725	29 655	0	0	10 046
Murch Bros. Cons. Co.....	53 500	20 000	31 500	1%	1½%	9 000
Sowers & Corkery	55 000	17 000	32 000	1%	2%	12 000

On motion of Mrs. Blake, the Contract for the Dairy Barn was awarded to Sowers & Corkery for $43,000.

On motion of Mrs. Evans, the distribution of funds for agricultural buildings (minutes, December 3, 1923, page 369) was amended by assigning $25,000 of the amount provided for beef cattle feeding plant to the amounts provided for the other buildings as may be necessary.

On motion of Mrs. Blake, the Contract for the Swine Plant was awarded to Ellis Brooks for $15,985.

On motion of Mrs. Grigsby, the contract for the Horse Barn was awarded to King & Petry for $29,655.

ADVISORY COMMITTEES, COLLEGE OF AGRICULTURE

(29) On nomination of the Dean of the College of Agriculture, I recommend that the following men be appointed on the Advisory Committees for 1924-25.

Agronomy—Soils
- Mr. Ralph Allen, *Delavan*
- Mr. Frank I. Mann, *Gilman*
- Mr. A. N. Abbott, *Morrison*
- Mr. G. F. Tullock, *Rockford*
- Mr. N. F. Goodwin, *Palestine*

Agronomy—Crops
- Mr. Harvey Sconce, *Sidell*
- Mr. Eugene Funk, *Bloomington*
- Mr. William Webb, *Joliet*
- Mr. Charles Rowe, *Jacksonville*
- Mr. O. J. Somer, *Winona*

Animal Husbandry
- Mr. Joseph Fulkerson, *Jerseyville*
- Mr. W. S. Corsa, *White Hall*
- Mr. A. A. Armstrong, *Camargo*
- Mr. A. F. Rising, *Champaign*
- Mr. Dan T. Davies, *Sugar Grove*

Dairy Husbandry
- Mr. N. W. Hepburn, *Peoria*
- Mr. A. L. Goodenough, *Morrison*
- Mr. G. A. Fox, *608 S. Dearborn Street, Chicago*
- Senator R. B. Swift, *Lake Forest*
- Mr. H. C. Horneman, *Danville*

Farm Mechanics
- Mr. J. P. Stout, *Chatham*
- Mr. J. V. Stevenson, *Streator*
- Mr. E. L. Gillham, *Edwardsville*
- Mr. Otis W. Hoit, *Geneseo*

Farm Organization and Management
- Mr. C. A. Ewing, *Decatur*
- Mr. Frank McKelvey, *Springfield*
- Mr. W. E. Riegel, *Tolono*
- Mr. W. H. Smith, *Eureka*
- Mr. Howard Swanzey, *Ridott*

Horticulture
- Mr. W. S. Perrine, *Centralia*
- Mr. A. L. McClay, *Hillview*
- Mr. H. M. Dunlap, *Savoy*
- Mr. G. A. Bryant, *Princeton*
- Mr. August Geweke, *Des Plaines*

Floriculture
MR. VAN ILES COLE, *Springfield*
MR. ALBERT T. HEY, *Maywood*
MR. W. N. RUDD, *Morgan Park*
MR. W. J. HEMBREIKER, *Springfield*
MR. F. L. WASHBURN, *Bloomington*

On motion of Mrs. Ickes, these committees were appointed.

AMERICAN ASSOCIATION OF UNIVERSITY WOMEN

(30) A report of his action declining membership for the University in the American Association of University Women, involving the payment of a membership fee of $25 a year.

This report was received for record.

INTERNATIONAL INSTITUTE OF COOPERATION

(31) A statement concerning an invitation to the International Institute of Cooperation to hold a convention at the University.

This statement was received for record.

TIME OF OCTOBER MEETING

On motion of Mr. Armstrong, it was voted to hold the October meeting at 9 o'clock a. m., on Saturday, October 25, 1924, at the Blackstone Hotel, in Chicago.

COMPTROLLER'S AND AUDITORS' REPORTS

The Secretary presented for record the report of the Comptroller for the quarter ending June 30, 1924, and of Arthur Young & Co., auditors.

August 25, 1924

President, Board of Trustees, University of Illinois, Urbana, Illinois

DEAR SIR:

We have audited the Cash Receipts and Disbursements of the University of Illinois for the year ending June 30, 1924, and certify that the Receipts and Disbursements for that period as embodied in the accounts of the Business Office hereto attached, are in accordance with the books and are correct.

We have further examined the report of the Comptroller presented herewith and have compared it with the books, and in our opinion, this report constitutes a correct statement of the affairs dealt with therein.

Yours faithfully,
ARTHUR YOUNG & COMPANY

COMPTROLLER'S REPORT

QUARTERLY REPORT OF THE COMPTROLLER TO
THE BOARD OF TRUSTEES
JUNE 30, 1924

SUMMARY

The unappropriated balance of the Reserve and Contingent Fund to be carried forward to the succeeding year was (Schedule A)		$ 377 894
The total receipts (student fees, sales, and Federal funds) of the University Treasurer for the 12 months ending June 30, 1924 (excluding transfers and balance July 1,) were (Schedule B)		2 071 092
The total disbursements were (Schedule B)		1 705 703
Balance, June 30, 1924 (allowing for outstanding warrants) (Schedule B)		960 058
Budget income from		
Federal Funds for the year, 100% of estimate		356 328
Student Fees, 104% of estimate		664 097
Miscellaneous sales and receipts, 187% of estimate		93 803
Agricultural sales, 131% of estimate		273 629
Disbursements from State Appropriations for Operation and Maintenance amounted to (Schedule B) being 100% of the total Appropriations for the fiscal year.		4 000 000
Board appropriations to Departments for the current fiscal year totaled (Schedule D)		4 790 243
These were 90% expended on June 30, 1924, and 4% encumbered, balances lapsed into Reserve and Contingent Fund.		
State Building appropriations of the Biennium, including balances totaled (Schedule D)		3 166 757
These were 27% expended on June 30, 1924, and 45% encumbered.		
Inventory Balances of general storerooms were (Schedule N)		98 972
Business handled by these storerooms for 12 months amounted to (Schedule N) being 337% of the inventory.		333 133
Educational Endowments totaled (Schedule O)		100 000
Student Loan Endowments totaled (Schedule O)		90 179
Scholarships and Prize Funds totaled (Schedule O)		64 337
Consisting of:		
Endowment Principal	$57 102	
Expendable Funds	7 235	
Receipts from private donations for Research for the year to date amounted to (Schedule O)		21 847
Total valuation of the University property at cost (Schedule P)		11 521 165
Indebtedness outstanding against property:		
Bonds on Dental Property, Chicago, due 1932 (Schedule P)		57 000
Unpaid balance on Properties purchased (Schedule P)		28 20

STATEMENT OF RESERVE AND CONTINGENT FUND
QUARTER ENDING JUNE 30, 1924

Balance forward March 31, 1924			$ 188 826 40
Credits			
Industrial Education—Cancellation of July 1st balance forward to cover Encumbrances			177 00
			189 003 40
Debits			
Additions to Budget Salary Appropriations Psychology (Appointment of Helen Hopkins, Board Minutes, March 11, p. 440)	$ 350 00		
Zoology (Appointment of Esther Furrow, Board Minutes, April, p. 472)	240 00	$ 590 00	
Additional Appropriations per Board Minutes, April 12, 1924			
Honors Day	1 000 00		
Crockerland Expedition Report	1 500 00		
Cahokia Mounds	1 100 00	3 600 00	
Additional Appropriations per Board Minutes May 17, 1924			
Business Office Expense and Equipment	775 00		
College of Medicine X-Ray Apparatus	25 000 00		
Music Expense and Equipment	507 00		
Land (Payments on College Place Lots)	30 000 00		
Land (Purchase of Lots 146, 151, and 152, College Place)	30 225 00	86 507 00	
Additional Appropriations per Board Minutes June 21, 1924			
Land (Commissions on Lot Purchases)	440 30		
Land	38 000 00	38 440 30	
Assignments on account of Incidental Expenditures		5 94	129 143 24
Unappropriated Balance of Reserve and Contingent Fund June 30, 1924			59 860 16
Add			
Surplus of Income from Smith-Hughes Act over Estimate		106 71	
Surplus of Income from Student Fees over Estimate		24 096 98	
Surplus of Income from Miscellaneous Receipts over Estimate		43 802 89	
Surplus of Income from Special Veteran's Bureau Contract		1 763 07	
Unused Balance Appropriations		248 354 30	318 123 95
Balance June 30, 1924			$ 377 984 11

STATEMENT OF BUDGET INCOME
YEAR ENDING JUNE 30, 1924

Balance July 1, 1923				
Free Balance in Income Account			$ 296 028 43	
Reserve to cover Encumbrances			923 913 34	
Balances subject to reappropriation			30 665 52	
Special Fund Balances forward			61 167 89	1 311 775 18
Income				
From State Appropriations				
For Operation and Maintenance				
Salaries and Wages	$2 900 000 00			
Travel	40 000 00			
Equipment	250 000 00			
Office Expense	140 000 00			
Operations	440 000 00			
Repairs	125 000 00			
Improvements	105 000 00	$4 000 000 00		
For Buildings (amounts expended in 1923-24)				
New Agricultural Buildings	51 087 96			
New Commerce Building	61 600 40			
New Library Building	77 968 74			
New Men's Gymnasium	51 882 86			
Woman's Residence Hall	672 99	243 212 95		
For Special Purposes				
Cook County Experiment Station (Amount expended)		843 04	4 244 055 99	
From United States Grants				
Land Grant Act of 1862 (Interest on Endowment Fund)		32 450 66		
Morrill Act (1890)		25 000 00		
Nelson Act (1907)		25 000 00		
Hatch Act (1887)		15 000 00		
Adams Act (1906)		15 000 00		
Smith-Lever Act (1914)		228 495 98		
Smith-Hughes Act (1917)		15 381 71	356 328 35	
From Student Fees (Gross)				
Regular		689 226 84		
Special Veteran's Bureau Contract		15 163 38	704 390 22	
From Departmental Sales, etc.				
Agricultural Sales		286 019 93		
Others		181 340 25	467 360 18	
Total Income				$5 772 134 74
Total Balances and Income				7 083 909 92
Charges to Income				
Disbursements from Appropriations (Schedule D)			6 248 319 50	
Reserve to cover Encumbrances (Schedule D)			284 184 73	
Balances subject to reappropriation (Schedule D)			149 538 92	
Special Balances non-fiscal funds			23 882 66	
Total Charges				6 705 925 81
Balance of Income Account June 30, 1924 (Schedule P)				$ 377 984 11

SUMMARY OF RECEIPTS AND DISBURSEMENTS
AS AT JUNE 30, 1924

	Balances July 1, 1923 and Adjustments	*Receipts and State Appropriations*	*Disbursements*	*Balances June 30, 1924*
Funds in Hands of University Treasurer				
General	$ 535 523 66	$2 280 980 17	$2 019 220 50	$ 797 283 33
U. S. Agricultural Experiment Station		30 000 00	30 000 00	
U. S. Smith-Lever		228 708 48	228 708 48	
Trust	59 146 64	325 117 68	221 490 28	162 774 04
Sub-totals (Gross)	(594 670 30)	(2 864 806 33)	(2 499 419 26)	(960 057 37)
Less: Interdepartmental Transfers		793 714 44	793 714 44	
Totals (Net)	(594 670 30)	(2 071 091 89)	(1 705 704 82)	(960 057 37)
Petty Cash Funds				
Bursar	25 000 00			25 000 00
Other Officers	4 300 00			4 300 00
Totals	(29 300 00)			(29 300 00)
State Appropriations				
For Operations				
Salaries and Wages		2 900 000 00	2 900 000 00	
Travel		40 000 00	40 000 00	
Equipment		250 000 00	250 000 00	
Office Expense		140 000 00	140 000 00	
Operations		440 000 00	440 000 00	
Repairs		125 000 00	125 000 00	
Improvements		105 000 00	105 000 00	
Agricultural Experiment Station, Cook County		15 000 00	843 04	14 156 96
Sub-totals, Operations		(4 015 000 00)	(4 000 843 04)	(14 156 96)
For Buildings, 1921-23				
Horticultural Field Laboratory	16 812 33		16 812 33	
Medical Research Laboratory				
1919-21	20 828 84		20 828 84	
1921-23	354 499 16		307 388 81	47 110 35
Natural History Hall	4 399 00		4 399 00	
New Agriculture Building	270 217 53		270 217 53	
1923-25				
New Agriculture Buildings		380 000 00	51 087 96	328 912 04
New Commerce Building		500 000 00	61 600 40	438 399 60
New Library Building		750 000 00	77 968 74	672 031 26
New Men's Gymnasium		500 000 00	51 882 86	448 117 14
Woman's Residence Hall		250 000 00	672 99	249 327 01
Boiler House and Heating Plant		60 000 00		60 000 00
Land		60 000 00[1]		60 000 00
Sub-totals, Buildings	(666 756 86)	(2 500 000 00)	(862 859 46)	(2 303 897 40)
Totals, State	(666 765 86)	(6 515 000 00)	(4 863 702 50)	(2 318 054 36)
Grand Totals	$1 290 727 16	$8 586 091 98	$6 569 407 32	$3 307 411 73

[1]For Biennium

CASH RECEIPTS
FOR THE TWELVE MONTHS ENDED JUNE 30, 1924

	Credited to Departments (Schedule D)	*Credited to Current Receipts*	
General Fund Income			
State and Federal			
Interest on Endowment Fund		$ 32 450 66	
Morrill Fund		25 000 00	
Nelson Fund		25 000 00	
Smith-Hughes (1922-23)		15 263 25	
Sub-total, State and Federal Sources			$
Departmental Receipts			
Administration and General	$ 866 62	7 922 03	
Library	184 64	1 616 59	
Agriculture	273 629 15	1 224 95	
Liberal Arts and Sciences	1 865 49	29 57	
Engineering	1 460 40	1 591 29	
Graduate School	140 05	2 786 87	
Chicago Colleges	280 12	39 541 10	
Commerce	5 00		
Law	15 00	102 25	
Education	307 85	551 00	
Music	370 65	142 25	
Physical Education—Women	40 06	173 00	
Military	7 36	2 583 85	
Summer Session 1923	6 00		
Physical Plant		1 800 13	
Buildings (Includes Hospital Transfer)	3 502 47	23 00	
New Building Deposits to meet Encumbrances of September 30, 1923	75 867 84		
Interest on Daily Balances		19 031 37	
Miscellaneous		18 084 70	
Sub-total, Departmental Receipts	$358 548 70	$97 203 95	
Student Fees (Gross)			
General		676 900 34	
Veteran's Bureau		31 650 32	
Sub-total, Fees			
Stores and Revolving Accounts (Gross, see deduction below)			1
Grand Total, General Fund			2
Special U. S. Funds			
Adams Fund		15 000 00	
Hatch Fund		15 000 00	
Smith-Lever Fund	212 50	228 495 98	
Sub-total	$ 212 50	$258 495 98	
Trust Fund			
Gross Cash Receipts			2
Less Interdepartmental Transfers			
Net Cash Receipts			$2

SUMMARY OF APPROPRIATIONS AS AT JUNE 30, 1924

	Schedule	Balances Forward July 1, 1923	Cash Receipts (Schedule C)	Transfers and Miscellaneous Credits
Administration and General	F	$ 10 528 27	$ 866 62	$ 22 130 36
Library	E	10 822 46	184 64	19 05
Agriculture				
University Appropriations	F	54 250 03	270 548 53	10 953 33
Smith-Lever	F	1 539 20	3 293 12	
Liberal Arts and Sciences	G	9 326 86	1 865 49	94 04
Engineering	H	19 129 22	1 460 40	255 65
Graduate School	I	7 714 23	140 05	
Medicine, Dentistry and Pharmacy	J	14 365 73	280 12	3 090 25
Law	K	1 038 55	15 00	
Library School	K			
Military	K	945 38	7 36	
Music	K	63 50	370 65	
Physical Education				
Men	K	616 73		
Women	K	209 25	40 06	
Summer Session, 1923	K	64 005 01	6 00	
Summer Session, 1924	K			
Education	K1	609 65	307 85	
Commerce	K2	107 05	5 00	
Physical Plant				
Operation	L	1 387 77		
Extension	L	104 725 22		
Sub-totals		301 384 11	279 390 89	36 542 68
Land and Buildings				
Special Funds and Appropriations	M	688 503 03	76 165 36	
Appropriations from General Fund	M	30 879 58	3 204 95	
Grand Totals		$1 020 766 72	$ 358 761 20	$36 542 68

Appropriations				
Expense and Equipment	*Total Credits*	*Disbursements*	*Reserved for Outstanding Encumbrances*	*Balances Subject to Reappropriation*
$193 112 31	$ 452 302 56	$395 371 26	$3 172 40	$ 6 451 33
87 054 00	200 090 15	187 950 24	8 791 23	
305 736 04	1 078 037 93	988 653 88	44 980 22	17 786 80
29 317 66	233 328 30	231 525 97		1 802 33
141 900 00	917 719 72	879 715 09	12 480 98	
141 475 00	672 430 27	596 526 65	24 131 92	
30 250 00	71 404 28	59 515 24	4 958 36	50 00
188 465 57	505 401 67	439 518 03	13 292 39	25 000 00
11 800 00	57 853 55	56 023 89	741 83	
1 325 00	17 385 00	16 074 62	402 00	
3 215 00	22 637 74	20 639 97	67 92	
8 532 00	45 466 15	44 320 05	678 82	
10 000 00	37 766 73	37 839 39	35 00	
2 600 00	26 169 31	24 796 26	863 32	
	64 011 01	62 147 01		
5 521 18	70 000 00	1 822 08	64 036 82	4 141 10
19 875 00	145 802 50	135 654 09	440 43	
13 400 00	183 632 05	170 819 85	302 74	
478 000 00	501 387 77	495 241 70		
206 900 00	311 625 22	233 886 13	45 023 95	19 216 96
1 878 478 76	5 614 451 91	5 078 041 40	224 400 33	74 448 52
243 212 95	1 007 881 34	927 676 27	56 322 41	23 882 66[2]
297 862 33	331 946 86	242 601 83	3 461 99	75 090 40
$2 419 554 04	$6 954 280 11	$6 248 319 50	$ 284 184 73	$173 421 58

STATEMENT OF THE ACCOUNTS FOR LAND AND BUILDINGS AS AT JUNE 30, 1924

	1923-24				1924-25		
Special Funds and Appropriations	*Appropriations and Credits*	*Disbursements*	*Reserved for Outstanding Encumbrances*	*Balances Lapsed*	*Balances in Biennium Appropriations June 30, 1924*	*Encumbrances*	*Unencumbered Balances June 30, 1924*
Boiler House Addition					$ 60 000 00		$ 60 000 00
Carr Tree Planting	$ 582 10			$ 582 10[1]			
Class of 1918 Tree Planting	60 00			60 00[1]			
Horticulture Field Laboratory	18 503 47	$ 17 549 79	$ 585 99	367 69[1]			
Land					60 000 00		60 000 00
Medical Research Laboratory							
1919-1921	20 828 84	20 828 84					
1921-1923	354 499 16	307 388 81	45 346 04	1 764 31[1]			
McKinley Hospital Equipment	20 446 98			20 446 98[1]			
Natural History Hall Addition	4 517 77	4 517 77					
New Agriculture Building 1921-1923	345 116 37	342 574 22	1 880 57	661 58[1]			
New Agriculture Buildings 1923-1925							
Beef Cattle Feeding Plant	268 20	268 20			49 731 80		49 731 80
Dairy Cattle Barns	10 317 50	10 317 50			39 682 50	2 002 00	37 680 50
Dairy Manufacturers Building	15 113 20	6 713 59	8 399 61		184 890 30	129 865 49	55 024 81
Poultry Building	7 877 13	7 877 13			17 122 87	13 581 52	3 541 35
Swine Plant	2 327 06	2 327 06			17 672 94		17 672 94
Tractor Laboratory—State[2]	15 000 00	15 000 00					
Tractor Laboratory—Local	12 000 00	11 256 35		743 65			
Work Horse Implement Barn	188 37	188 37			19 811 63		19 811 63
Total	(51 091 46)	(42 691 85)	(8 399 61)		(328 912 04)	(145 449 01)	(183 463 03)
New Commerce Building	61 655 10	61 600 40	54 70		438 399 60	397 871 80	40 527 80
New Library Building	77 994 24	77 968 74	25 50		672 031 26	521 768 71	150 262 55
New Men's Gymnasium	51 912 86	51 882 86	30 00		448 117 14	359 254 46	88 862 68
New Women's Residence Hall	672 99	672 99			249 327 01		249 327 01
Sub-totals (Schedule D)	(1 007 881 34)	(927 676 27)	(56 322 41)	(23 882 66)[1]	(2 256 787 05)	(1 424 343 98)	(832 443 07)

Appropriations from General Funds					
Agronomy Caretaker's Cottage	6 000 00			6 000 00[2]	
Building Studies	3 134 12	599 56		2 534 56	
Education Building Equipment	6 079 04	1 811 71		4 267 33	
Land	258 368 33	193 068 73		65 281 60[3]	
Interest and Taxes	5 042 33	5 495 31		452 98[4]	
Liquidation of Indebtedness	6 000 00	2 786 00		3 214 00	
McKinley Hospital Plans[5]	8 487 67	5 922 27	1 000 00	1 565 40[2]	
Moving Medical Research Equipment and Library	2 500 00			2 500 00[3]	
Moving Offices to New Agriculture Bldg.	2 500 00	38 01	2 461 99		
Students' Hospital Repairs and Equipment	3 528 57	3 299 09		229 48	
Woman's Building Improvements	18 306 80	18 306 80			
Sub-totals (Schedule D)	(331 946 86)	(242 601 83)	(3 461 99)	(85 883 04)	
Grand Totals	$1 339 828 20	$1 170 278 10	$59 784 40	$109 765 70	$2 256 787 05 $1 424 343 98 $832 443 07

Agronomy Caretaker's Cottage	6 000 00
Moving Medical Research Laboratory and Library	2 500 00
McKinley Hospital Plans	1 565 40
Land	65 025 00
	75 090 40

[1]Special Funds Balances Forward.
[2]Not included in Special Fund Totals—Included in General Totals.
[3]Balances subject to Reappropriation
[4]Overdraft
[5]For account with gift, see Schedule O.

STATEMENT OF THE STORES AND REVOLVING ACCOUNTS AS AT JUNE 30, 1924

	Balances July 1, 1923			*Disbursements*	*Transfers*		*Credit from Department Requisitions and Sales*	*Balances*		
	Stock	*Jobs in Process*	*Dormitories and Hospitals*		*To*	*From*		*Stock*	*Jobs in Process*	*Dormitories and Hospitals*
Storerooms										
Chicago General Stores	573 75			$ 15 829 37			$ 14 492 74	$ 1 910 38		
General Chemical Stores				46 336 96						
General Chemical Stores Ohd.	32 710 87			2 440 57			49 322 51	32 165 89		
Office Supply Store				44 634 47						
Office Supply Store Ohd	14 625 44			2 795 20			48 732 39	13 315 88		
Physical Plant Stores				84 337 64		$76 486 68	12 630 41			
Physical Plant Stores Ohd	42 638 80				$3 772 30		1 041 87	40 589 78		
Postage	648 37			21 481 14			22 029 40	100 11		
Storage Coal	28 410 65			90 869 46		108 380 88	9 58	10 889 65		
Sub-totals	(119 607 88)			(308 724 81)	(3 772 30)	(184 867 56)	(148 265 74)	(98 971 69)		
Service Departments										
Blueprinting	1 642 48[1]			2 737 13			3 369 69	2 275 04[1]		
Photography		$ 837 96		5 497 42			5 279 51		$ 1 055 87	
Chicago Print Shop		321 36		2 172 03			2 577 86		84 47[1]	
Chicago Supt. Stores		461 64		92 719 61			90 278 85		2 902 40	
Physical Plant Job System										
Jobs Physical Plant		41 066 94		141 057 24	562 362 86		712 181 69		31 146 04	
Jobs Physical Plant Ohd		404 62[1]			9 945 69		10 700 38			
Labor Pay Roll		232 80		412 657 69		391 213 29	22 007 60		330 40[1]	
Print Shop		780 68		64 363 31			60 217 24		4 927 55	
Stenographic Bureau				11 915 04			11 914 24			
Sub-totals	(1 642 48[1])	(43 296 76)		733 119 47)	(572 308 55)	(391 213 29)	(918 527 06)	(2 275 04[1])	(39 616 99)	
Revolving Accounts										
Military Uniforms	82 00			9 555 00			8 941 70	695 30		
Organic Chemical Manufacturing	347 80[1]			6 810 25			5 056 66	1 405 79		
Tenant Properties				9 938 74			9 938 74			
Tunnell Gas Investigation				55 24			55 24			
Veteran's Bureau		3 50		561 27			564 77			
Applied Chemistry Testing Lab.				1 183 30			1 609 27		425 97[1]	
Warm Air Research Residence				53 97			37 96		16 01	
Sub-totals	(265 80[1])	(3 50)		(28 157 77)			(26 204 34)	(2 101 09)	(409 96[1])	
Dormitories, etc.										
Woman's Residence Hall			$61 665 15[1]	60 479 05			81 566 98			82 753 08[1]
Davenport House			2 638 78[1]	9 170 73			9 627 60			3 095 65[1]
Students' Hospital			5 895 18[1]	20 892 57			16 926 78			1 929 39[1]
Sub-totals			(70 199 11[1])	90 542 35)			(108 121 36)			(87 778 12)[1]
Grand Totals	$117 699 60	$43 300 26	$70 199 11[1]	$1 160 544 40	$576 080 85	$576 0-0 85	$1 201 118 50	$98 797 74	$39 207 03	$87 778 12[1]

[1]Credit Balances

AS AT JUNE 30, 1924 TRUST FUNDS

	Permanent Funds				*Expendable Funds*			
		Principal June 30, 1924				*Balance June 30, 1924*		
	Total Principal July 1, 1923	*Total*	*Investments and Receivables*	*Cash*	*Balance July 1, 1923*	*Total*	*Investments and Receivables*	*Cash*
Educational Endowments								
McKinley Railway Economics Fund		$100 000 00	$100 000 00			$ 1 750 00		$ 1 750 00
Totals, Educational Endowments		(100 000 00)	(100 000 00)			(1 750 00)		(1 750 00)
Student Loan Endowments								
Anonymous Students' Loan Fund—Principal		30 000 00	30 000 00					
Income—(loanable)		1 954 65	1 775 00	$ 179 65				
Class of 1895 Students' Loan Fund	$ 211 56	219 09	200 00	19 09				
Darling Memorial Loan Fund	103 88	107 63	75 00	32 63				
Dora E. Biddle Loan Fund	2 226 71	2 321 45	1 900 00	421 45				
Graduate Students' Loan Fund	118 10	123 10	100 00	23 10				
Margaret Lange James Students' Loan Fund	5 790 20	5 540 20	4 775 00	765 20	$ 303 24	331 86		331 86
W. B. McKinley Students' Loan Fund	19 891 11	20 471 08	19 356 80	1 114 28				
James R. Morris Students' Loan Fund	10 265 08	10 742 50	10 525 00	217 50				
Overseas Loan Fund	2 010 50	2 012 85	1 870 00	142 85				
School of Pharmacy Loan Fund for Women Students	602 34	605 34	400 00	205 34				
Edward Snyder Department of Students' Aid	12 386 25	12 536 25	11 283 50	1 252 75	287 52	401 24		401 24
Henry Roberts Temple Loan Fund		1 000 00		1 000 00				
Woman's League Students' Loan Fund	1 753 40	1 954 18	1 835 00	119 18				
Totals, Student Loan Endowments	(55 359 13)	(89 588 32)	(84 095 30)	(5 493 02)	(590 76)	(733 10)		(733 10)
Scholarship, Fellowship, and Prize Endowments								
Baker Prize Fund		2 300 00	2 300 00			41 78		41 78
Thrift Committee Economics Prize Fund		1 255 99	1 247 76	8 23				
Emily W. L. Schofield M. E. Missionary Scholarship in the College of Medicine	2 000 00	2 000 00	2 000 00		397 50	517 50		517 50
English Poetry Prize Fund	318 25	315 00	315 00			14 88		14 88
Francis J. Plym Fellowships and Prizes in Architecture		29 563 75	29 563 75		5 975 13	5 566 29	$ 2 932 50	2 633 79
John M. and Louisa C. Gregory Scholarship Fund	5000 00	6 000 00	5 994 40	5 60	1 67[1]	155 60		155 60
Robert F. Carr Fellowships in Chemistry	10 000 00	10 000 00	10 000 00		209 50	564 25		564 25
Robert Laughlin Rea Scholarship in the College of Medicine	4 800 00	4 800 00	4 791 00	9 00	57 32[1]	3 18		3 18
William Jennings Bryan Prize Fund for Students' Essays on Government	255 00	255 00	255 00		29 00	47 00		47 00
Thatcher Howland Guild Memorial Prize Fund for Students' Poems and One-Act Plays	612 00	612 00	612 00		58 16	67 41		67 41
Totals, Scholarship, Fellowship and Prize Endowments	(22 985 25)	(57 101 74)	(57 078 91)	(22 83)	(6 610 30)	(6 977 89)	(2 932 50)	(4 045 39)

AS AT JUNE 30, 1924 TRUST FUNDS

	Permanent Funds				*Expendable Funds*			
		Principal June 30, 1924				*Balance June 30, 1924*		
	Total Principal July 1, 1923	*Total*	*Investments and Receivables*	*Cash*	*Balance July 1, 1923*	*Total*	*Investments and Receivables*	*Cash*
Building Funds								
McKinley Hospital Fund						127 833 64	25 000 00	102 833 64
Totals, Building Fund						(127 833 64)	(25 000 00)	(102 833 64)
Research Donation Funds								
American Medical Association, Grant 52					109 50	58 50		58 50
B'nai B'rith, Independent Order of, Library Fund					35 88	60 39		60 39
Carter-Pennell Operating Account						968 45		968 45
Division of Applied Chemistry Testing					384 15	(Transferred to Stores and Revolving)		
Fatigue of Metals—Allis Chalmers Company					337 85	347 78		347 78
Fatigue of Metals—Copper and Brass Association					899 24	426 22		426 22
Fatigue of Metals—General Electric Company					3 332 70	765 85		765 85
Fatigue of Metals—Western Electric Company						2 359 88		2 359 88
National Warm Air Heating and Ventilating Ass'n.					99 69	303 90[2]		303 90[2]
National Academy of Science, Bache Research Fund					43 43	75 00		75 00
Sweet Corn Investigation—Hoopeston Canning Co					1 000 00	1 000 00		1 000 00
U. S. Social Hygiene Fund					879 12[2]			
Utilities Research Committee—Ageing of Porcelain						650 00		650 00
Utilities Research Committee—Boiler Feed Water Treatment						500 00		500 00
Utilities Research Committee—Fatigue of Structural Parts						750 00		750 00
Utilities Research Committee—Refractories						600 00		600 00
Totals, Research Donation Funds					(5 363 32)	(8 258 17)		(8 258 17)
Scholarship, Fellowship, and Prize Donations								
American Pharmaceutical Scholarships					58 93	58 93		58 93
B'nai B'rith, Independent Order of, Prize Fund					25 00	25 00		25 00
Graduate Fellowship in Arts and Sciences					300 00			
Illinois Agricultural Association in Dairy Marketing					180 00			
Knights of Columbus Scholarship Fund					60 36	385 00		385 00
Total, Scholarship, Fellowship and Prize Donations						(624 29)	(468 93)	(468 93)

Deposit Funds						
Accountancy Committee (C. P. A. Examinations)			8 439 43	11 214 93		11 214 93
Band Uniforms			45 75			
Chicago Student Deposits			234 80	1 887 05		1 887 05
Cooperative Rooming Fund			76 39	397 96		397 96
Entrance Examinations			1 692 51	4 214 16		4 214 16
Graduate School Theses Deposits			8 467 48	6 647 27		6 647 27
Key Deposits			846 85	953 85		853 85
Military Deposits			3 682 34	645 00		645 00
Military Equipment			510 00	4 373 05		4 373 05
Towel Fund—Men's			1 998 70	966 50		966 50
Towel Fund—Women's			110 50	262 50		262 50
Totals, Deposit Funds			(26 104 75)	(31 562 27)		(31 562 27)
[2]Overdraft						
University Organizations' Funds						
Hospital Association			416 89	3 503 75	2 984 96	518 79
May Fete			6 391 47	6 231 47	4 000 00	2 231 47
May Fete (Women's Athletic Association)			957 61	962 71		962 71
Military Band			57 35[1]	27 66		27 66
Military Band Reserve			497 79	516 97	497 79	19 18
Military Band Special Athletic Trips			379 06	168 75		168 75
Star Course—Current			1 231 77	462 16		462 16
Reserve				1 000 00	988 06	11 94
University Choral Society			72 42	294 80		294 80
Woman's Bowling Fund			273 00	181 10		181 10
Totals, University Organizations' Funds			(10 162 66)	(13 349 37)	(8 470 81)	(4 878 56)
Miscellaneous Funds						
Agronomy Special Fund			1 477 98	1 477 98		1 477 98
Chicago M. S. F. A. Short Course in Plumbing and Heating				835 70		835 70
School of Military Aeronautics Recreation Fund			133 35	133 35		133 35
Short Course for Electrical Metermen			99 04	7 64		7 64
Short Course for Gas Metermen				273 46		273 46
Totals, Miscellaneous Funds			(1 710 37)	(2 728 13)		(2 728 13)
Grand Totals, Trust Funds	$78 344 38	$246 690 06	$241 174 21	$5 515 85	$51 166 45	$193 661 50	$36 403 31	$157 258 19

[1]Overdraft

BALANCE SHEET AS AT JUNE 30, 1924

ASSETS

I. *General and Building Funds*		
Cash in Hands of University Treasurer (Schedule B)		
General Fund		$ 797 283 33
Petty Cash Funds (Schedule B)		29 300 00
Balances in State Appropriations (Schedule B)		
For Operation	14 156 96	
For Buildings	2 303 897 40	2 318 054 36
Stores		
Inventories of Stock (Sch. N). $98 797 74		
Jobs in Process (Sch. N) 39 207 03	138 004 77	
Accounts Receivable—Stores	13 334 39	151 339 16
Due from State Board of Vocational Education (Smith-Hughes)		15 381 69
Due from U. S. Veteran's Bureau		1 933 39
Accounts Receivable—General		4 685 28
Total General and Building Funds		(3 317 977 21)
II. *Trust Funds*		
Cash (Schedule B)	162 774 04	
Notes Receivable	54 095 30	
Investments	223 482 22	440 351 56
III. *State Auditor* (Endowment Fund from Land Grant of 1862)		649 012 91
IV. *Plant and Property* (July 1, 1923)		11 521 165 45
Total		$15 928 507 13

LIABILITIES AND SURPLUS

I. *General and Building Funds*			
Appropriation Balances Forward			
(Sch. D) Reserved for Encumbrances	$ 284 184 73		
Subject to Reappropriation	149 538 92		
Special Balances—Non-fiscal funds	23 882 66		$ 457 606 31
Special State Biennium Fund			
Balances for 1924–25 Expenditures			2 270 944 01
Unappropriated Income (Reserve and Contingent Fund) (Schedule A)			377 984 11
Reserve for Stores			118 979 38
Residence Hall and Hospital Balances (Schedule N)			87 778 12
Reserve for Accounts Receivable			4 685 28
Total General and Building Funds			(3 317 977 21)
II. *Reserve for Trust Funds* (Schedule O)			440 351 56
III. *Reserve for Endowment Fund*			649 012 91
IV. *Bonds* (Dental Property) 60 000 00			
Less Treasury Bonds 3 000 00	57 000 00		
Mortgages Payable on Property Purchased	28 200 00		
Surplus Invested in Fixed Assets	11 435 965 45		11 521 165 45
Total			$15 928 507 13

STATEMENT OF MEMORIAL STADIUM FUND
AS AT JUNE 30, 1924

	Receipts and Disbursements			
	Prior to July 1, 1923	*July 1, 1923 to Mar. 31, 1924*	*April 1 to June 30*	*Total to Date*
Receipts				
From Subscriptions	$ 782 565 69	$ 315 812 43	$ 67 117 40	$1 165 495 52
From Donations	5 405 27	(39 00)	10 00	5 376 27
From Interest	13 760 93	3 547 22	447 74	17 755 89
From Loans		50 000 00	22 620 38	72 620 38
Total Receipts	801 731 89	369 320 65	90 195 52	1 261 248 06
Disbursements				
Office and Collection Expense	20 107 23	(18 603 47)[1]	(354 00)[1]	1 149 76
Office Equipment	2 052 62	(2 052 62)[1]		
Land	81 236 92	(81 236 92)[2]		
Construction	446 633 36	665 387 29	146 071 02	1 258 091 67
Total Disbursements	550 030 13	563 494 28	145 717 02	1 259 241 43
Balance	$251 701 76			$2 006 63

BALANCE SHEET

Assets			
Cash		2 006 63	
Due from Pledge Installments			
Past Due Installments	306 999 36		
Future Installments	670 113 02	977 112 38	
Property and Equipment Stadium	1 258 091 67	1 258 091 67	
Total Assets			2 237 210 68
Liabilities and Surplus			
Notes Payable	72 620 38		
Contracts Outstanding	435 604 68		
Invested in Plant and Equipment	1 258 091 67	1 766 316 73	
Balance of Pledges over Expenditures and Contracts		470 893 95	
Total Liabilities and Surplus			$2 237 210 68

Note: Parentheses indicate deductions due to refunds.

[1]Refunded by Athletic Association.
[2]Refunded by University of Illinois.

APPOINTMENTS MADE BY PRESIDENT KINLEY

The Secretary presented also for record a list of appointments made by the President of the University.

Ackley, Alberta M., Student Assistant, in the Catalog Department of the Library, on one-half time, for eleven and one-half months, beginning September 15, 1924, at a salary of fifty dollars ($50) a month. (September 13, 1924)[2]

Allen, Lilburn, Assistant in Soil Survey Analysis, in the Department of Agronomy, in the Agricultural Experiment Station, for one year, beginning September 1, 1924, at a salary of one hundred dollars ($100) a month. (July 29, 1924)[1]

Appling, J. W., Instructor in the University High School, for ten months, beginning September 1, 1924, at a salary of one hundred eighty dollars ($180) a month. (August 9, 1924)[1]

Atwood, Eda M., Assistant in Foods, in the Department of Home Economics, on one-half time, for one year, beginning September 1, 1924, at a salary of fifty-four and one-sixth dollars ($54.17) a month. (September 5, 1924)[2]

Batman, Dorothy, Stenographer in the Department of Physical Education for Women, for one year, beginning September 1, 1924, at a salary of seventy dollars ($70) a month, subject to the rules of the Civil Service Commission. (September 22, 1924)

Baxter, O. W., Assistant in English, on one-third time, for ten months, beginning September 1, 1924, at a salary of forty dollars ($40) a month. (September 15, 1924)[1]

Bennett, George, University Inspector of Building Construction, in the Office of the Supervising Architect, for one year, beginning September 1, 1924, at a salary of one hundred seventy-five dollars ($175) a month, subject to the rules of the Civil Service Commission. (September 20, 1924)

Bergmann, T., Assistant in Accountancy, on one-half time, for ten months, beginning September 1, 1924, at a salary of sixty dollars ($60) a month. (September 13, 1924)[3]

Beumer, Edward H., Instructor in the University High School, on one-half time, for ten months, beginning September 1, 1924, at a salary of seventy-five dollars ($75) a month. (September 23, 1924)

Blaisdell, Frank R., Librarian, in the Department of Military Bands, for ten months, beginning September 1, 1924, at a salary of thirty dollars ($30) a month. (September 3, 1924)[2]

Blodgett, Harold Wm., Assistant in English, for ten months, beginning September 1, 1924, at a salary of one hundred sixty dollars ($160) a month. (August 25, 1924)[2]

Boardman, Harry C., Instructor in Civil Engineering, for ten months, beginning September 1, 1924, at a salary of one hundred eighty dollars ($180) a month. (August 8, 1924)[1]

Boner, Josephine, Clerk and Stenographer, in the Department of English, for one year, beginning September 1, 1924, at a salary of ninety dollars ($90) a month, subject to the rules of the Civil Service Commission. (September 17, 1924)[2]

Brehm, Helen E., Assistant in English, on two-third time, for ten months, beginning September 1, 1924, at a salary of one hundred dollars ($100) a month. (July 21, 1924)

Brigham, Harry S., Superintendent of Building Construction, in the Office of the Supervising Architect, for one year, beginning September 1, 1924, at a salary of two hundred fifty dollars ($250) a month, subject to the rules of the Civil Service Commission. (September 20, 1924)

Brown, W. S., Instructor in Physical Education for Men, for ten months, beginning September 1, 1924, at a salary of two hundred and twenty-five dollars ($225) a month. (July 16, 1924)

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[1]The date in parenthesis is the date on which the appointment was made by Dean Babcock acting for the President of the University.

[2]Appointment made by Dean Daniels.

[3]Declined.

Burford, Lyda B., Associate in Home Economics and Director of Cafeteria, in the College of Agriculture, on full time, from September 1, 1924, to March 1, 1925, at a salary of one hundred seventy-five dollars ($175) a month, and on three-fourths time from March 1, 1925, to September 1, 1925, at a salary of one hundred forty-one and two-thirds dollars ($141.66) a month. (August 30, 1924)[2]

Butler, W. G., Special Field Assistant, in the College of Agriculture, for ten months, beginning September 1, 1924, at a salary of two hundred forty-one and two-thirds dollars ($241.66) a month. (July 30, 1924)[1]

Camp, Mildred, Librarian in the Ricker Library, in the Department of Architecture, for one year, beginning September 1, 1924, at a salary of one hundred forty-one and two-thirds dollars ($141.66) a month, subject to the rules of the Civil Service Commission. (July 26, 1924)

Canavan, W. P., Assistant in Zoology, on one-fourth time, for ten months, beginning September 1, 1924, at a salary of thirty dollars ($30) a month. (August 8, 1924)[1]

Chance, J. H., Instructor in Architecture, for ten months, beginning September 1, 1924, at a salary of one hundred eighty dollars ($180) a month. (September 20, 1924)[2]

Chapin, George, Editorial and Executive Assistant, in the office of the President, for one year, beginning September 1, 1924, at a salary of twenty-five hundred dollars ($2,500). (July 12, 1924)

Clark, Margaret, Loan Assistant in the Library, for one year, beginning September 1, 1924, at a salary of ninety-five dollars ($95) a month. Subject to the rules of the Civil Service Commission. (August 9, 1924)[1]

Clayberg, H. D., Assistant in Anatomy, in the College of Medicine, for one year, beginning September 1, 1924, with tuition and laboratory fees. (July 31, 1924)[1]

Clotfelter, Ada M., Assistant in English, on two-thirds time, for ten months, beginning September 1, 1924, at a salary of one hundred dollars ($100) a month. (August 26, 1924)[2]

Combs, Ralph M., Assistant in Zoology, on one-fourth time, for ten months, beginning September 1, 1924, at a salary of thirty dollars ($30) a month. (September 19, 1924)[1]

Cooper, Dr. A. R., Assistant Professor of Anatomy, in the College of Medicine, on one-half time, for one year, beginning September 1, 1924, at a salary of sixty-six and two-thirds dollars ($66.66) a month. (September 19, 1924)

Cotter, John R., Assistant in English, on one-half time, for ten months, beginning September 1, 1924, at a salary of seventy dollars ($70) a month. (August 26, 1924)[2]

Cottle, Sarah, Technician in the Department of Pathology, in the College of Medicine, for one year, beginning September 1, 1924, at a salary of ninety dollars ($90) a month, subject to the rules of the Civil Service Commission. (July 26, 1924)

Craft, Russell L., Assistant in English, for ten months, beginning September 1, 1924, at a salary of one hundred fifty dollars ($150) a month. (July 21, 1924)

Craw, Ethelyn C., Instructor in Public School Music, for ten months, beginning September 1, 1924, at a salary of one hundred eighty dollars ($180) a month. (September 13, 1924)[2]

Cunningham, Mrs. L. M., Stenographer in the Department of Animal Husbandry, in the College of Agriculture and Agricultural Experiment Station, for one year, beginning September 1, 1924, at a salary of seventy-five dollars ($75) a month, subject to the rules of the Civil Service Commission. (July 31, 1924)[1]

Davis, C. B., Assistant in Journalism, for ten months, beginning September 1, 1924, at a salary of one hundred ninety dollars ($190) a month. This appointment supersedes his previous one. (July 30, 1924)[2]

Davis, May V., Instructor in Orthondontia and Children's Clinic, in the College of Dentistry, for one year, beginning September 1, 1924, at a salary of one hundred twenty-five dollars ($125) a month. (September 3, 1924)[2]

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[1]Appointment made by Provost Babcock.
[2]Appointment made by Dean Daniels.

Doak, John, University Architectural Draftsman, in the Office of the Supervising Architect, for one year, beginning September 1, 1924, at a salary of one hundred sixty-five dollars ($165) a month, subject to the rules of the Civil Service Commission. (September 20, 1924)

Driver, E. C., Assistant in Zoology, on one-half time, for ten months, beginning September 1, 1924, at a salary of sixty dollars ($60) a month. (September 23, 1924)[1]

Dunn, C. B., Laboratory Helper in Chemistry, for one year, beginning September 1, 1924, at a salary of seventy-five dollars ($75) a month, subject to the rules of the Civil Service Commission. (August 7, 1924)

Dvorak, R. F., Assistant in Military Bands, on one-fourth time, for ten months, beginning September 1, 1924, at a salary of thirty dollars ($30) a month. (September 11, 1924)[2]

Edwards, Ellen, Stenographer, in the Office of the President, for one year, beginning September 1, 1924, at a salary of fourteen hundred dollars ($1400). This appointment supersedes her previous one. (August 5, 1924)

Eichenberger, W. G., Instructor in General Engineering Drawing, for ten months, beginning September 1, 1924, at a salary of one hundred sixty dollars ($160) a month. (August 22, 1924)[2]

Eliot, Ruth F., Associate in the Library School, for two years, beginning September 1, 1924, at a salary of one hundred ninety-one and two-thirds dollars ($191.66) a month. (August 9, 1924)[1]

Essex, H. E., Assistant in Zoology, on one-half time, for ten months, beginning September 1, 1924, at a salary of sixty dollars ($60) a month. This appointment supersedes his previous one. (September 19, 1924)

Ets, H. N., Technical Assistant in Medicine, for one year, beginning September 1, 1924, at a salary of one hundred fifty dollars ($150) a month. (July 16, 1924)

Eversole, H. B., Assistant in Accountancy, for ten months, beginning September 1, 1924, at a salary of one hundred forty dollars ($140) a month. (August 30, 1924)[2]

Fisch, M. E., Assistant in Anatomy, in the College of Medicine, on one-half time, for one year, beginning September 1, 1924, at a salary of forty-one and five-sixths dollars ($41.83) a month. (September 6, 1924)[2]

Fitch, F. R., Instructor in Physiology, in the College of Medicine, on three-fourths time, for one year, beginning September 1, 1924, at a salary of one hundred dollars ($100) a month. (August 18, 1924)[2]

Gettys, Cora L., Fellow in Political Science, for ten months, beginning September 1, 1924, at a salary of fifty dollars ($50) a month. (August 15, 1924)[2]

Gilchrist, Virgil M., Medical Adviser for Women and Associate in Hygiene for Women, for one year, beginning September 1, 1924, at a salary of two hundred eight and one-third dollars ($208.33) a month. (July 16, 1924)

Green, Helen, Stenographer in the Department of Physical Education for Men, for one year beginning September 1, 1924, at a salary of ninety dollars ($90) a month, subject to the rules of the Civil Service Commission. (August 22, 1924)[2]

Gregg, R. S., Specification Writer, in the Office of the Supervising Architect, for two months, beginning September 15, 1924, at a salary of three hundred ninety dollars ($390) a month, subject to the rules of the Civil Service Commission. (September 20, 1924)

Hackley, Ruth G., Clerk, in the Department of Dairy Husbandry, for one year, beginning September 1, 1924, at a salary of seventy-five dollars ($75) a month, subject to the rules of the Civil Service Commission. (July 12, 1924).

Hall, Serena G., Assistant in English, for ten months, beginning September 1, 1924, at a salary of one hundred fifty dollars ($150) a month. (July 21, 1924)

Harding, Florence M., Cataloger in the Library, for one year, beginning September 1, 1924, at a salary of one hundred dollars ($100) a month, subject to the rules of the Civil Service Commission. (August 9, 1924)[1]

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[1]Appointment made by Provost Babcock.
[2]Appointment made by Dean Daniels.
[3]Declined.

Hart, Edithe F., Assistant in the Order Department of the Library, for eleven and one-half months, beginning September 15, 1924, at a salary of one hundred ten dollars ($110) a month, subject to the rules of the Civil Service Commission). (September 13, 1924)[2]

Hart, Lillian, Assistant Secretary of Committee on Appointments and Clerk, University High School, for one year, beginning September 1, 1924, at a salary of one hundred twenty-five dollars ($125) a month, subject to the rules of the Civil Service Commission. (July 11, 1924).

Haughton, H. O., Assistant Superintendent of the Foundry Laboratory, in the Department of Mechanical Engineering, for one year, beginning September 1, 1924, at a salary of one hundred eighty-three and one-third dollars ($183.33) a month. This appointment supersedes his previous one. (July 5, 1924).

Hawkes, J. B., Assistant in Botany, on one-fourth time, for ten months, beginning September 1, 1924, at a salary of thirty dollars ($30) a month. (July 5, 1924)

Hayes, W. P., Assistant Professor of Entomology, for one year, beginning September 1, 1924, at a salary of three hundred dollars ($300) a month. (July 24, 1924)

Heaton, Madeline, Cashier, in the Chicago General Office, beginning July 1, 1924, and continuing until September 1, 1925, at a salary of one hundred dollars ($100) a month, subject to the rules of the Civil Service Commission. This appointment supersedes her previous one. (July 16, 1924)

Hill, D. M., Assistant in Botany and Pharmacognosy, in the School of Pharmacy, for one year, beginning September 22, 1924, at a salary of one hundred dollars ($100) a month. (September 22, 1924)

Hill, E. L., Assistant in Chemistry, on one-half time, for ten months, beginning September 1, 1924, at a salary of seventy dollars ($70) a month. (September 22, 1924)

Hines, Grace I., Secretary to the Dean and Director of the College of Agriculture and the Agricultural Experiment Station, for one year, beginning September 1, 1924, at a salary of one hundred eight and one-third dollars ($108.33) a month. (July 16, 1924)

Hirsch, E. W., Assistant in Genito-Urinary Surgery, in the College of Medicine, for one year, beginning September 1, 1924, without salary. (July 18, 1924)

Holen, Hester M., Instructor in Orthodontia and Children's Clinic, in the College of Dentistry, for one year, beginning September 1, 1924, at a salary of one hundred twenty-five dollars ($125) a month. (July 30, 1924)

Hornkohl, Fred, Jr., Superintendent of Building Construction, in the Office of the Supervising Architect, for six and two-thirds months, beginning September 10, 1924, at a salary of two hundred and twenty-five dollars ($225) a month, subject to the rules of the Civil Service Commission. (September 20, 1924)

Horton, R., Instructor in Civil Engineering, for ten months, beginning September 1, 1924, at a salary of one hundred ninety dollars ($190) a month. (August 8, 1924)

Howard, C. G., Instructor in Business Law, for ten months, beginning September 1, 1924, at a salary of two hundred fifty dollars ($250) a month. (September 6, 1924)[2]

Huff, J. O., Assistant in English, on two-thirds time, and Assistant Secretary of the Committee on Student's English, for ten months, beginning September 1, 1924, at a salary of one hundred seventy-five dollars ($175) a month. (August 26, 1924)[2]

Hyde, Ruth B., Record Clerk in the Registrar's office, for one year, beginning September 1, 1924, at a salary of seventy dollars ($70) a month, subject to the rules of the Civil Service Commission. (July 16, 1924)

Jackson, Z. M., Clerk in the Auditing Division of the Business Office, for one year, beginning September 1, 1924, at a salary of eighty-five dollars ($85) a month, subject to the rules of the Civil Service Commission. (September 13, 1924)[2]

Jorgensen, Albert, Instructor in General Engineering Drawing, for ten months, beginning September 1, 1924, at a salary of one hundred sixty dollars ($160) a month. (September 10, 1924)[2]

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[1]Appointment made by Provost Babcock.
[2]Appointment made by Dean Daniels.
[3]Declined.

Kahn, Beatrice, Dispensary Clerk, in the College of Medicine, for one year, beginning September 1, 1924, at a salary of seventy-nine and one-sixth dollars ($79.16) a month, subject to the rules of the Civil Service Commission. (September 19, 1924)

Kamplain, J. C., Assistant in Mathematics, on two-thirds time, for ten months, beginning September 1, 1924, at a salary of ninety-three and one-half dollars ($93.50) a month. (September 23, 1924)

Keele, H. M., Assistant in English, for ten months, beginning September 1, 1924, at a salary of one hundred forty dollars ($140) a month. (September 6, 1924)[2]

Kline, L. E., Assistant in Accountancy, for ten months, beginning September 1, 1924, at a salary of one hundred forty dollars ($140) a month. (September 3, 1924)[2]

Kneier, C. M., Assistant in Political Science, for ten months, beginning September 1, 1924, at a salary of one hundred forty dollars ($140) a month. This appointment supersedes his previous one. (September 13, 1924)[2]

Koritz, L. A., Research Assistant in Olericulture, on one-half time, from September 1, 1924, to June 1, 1925, at a salary of sixty dollars ($60) a month, and on full time from June 1, 1925 to September 1, 1925, at a salary of one hundred fifty dollars ($150) a month. (August 22, 1924)[2]

Kraft, Adolph, Assistant in Experimental Surgery, in the College of Medicine, on one-half time, for one year, beginning September 1, 1924, at a salary of eighty-three and one-third dollars ($83.33) a month. (July 24, 1924)

Larson, Edward, Instructor in Physiological Chemistry, in the College of Medicine, for one year, beginning September 1, 1924, at a salary of one hundred fifty dollars ($150) a month. (August 15, 1924)[2]

Lash, A. F., Instructor in Laboratory Gynecology, in the College of Medicine, on one-half time, for one year, beginning September 1, 1924, at a salary of eighty-three and one-third dollars ($83.33) a month. (August 15, 1924)[2]

Lindquist, Carolyn, Laboratory Assistant in Nutrition, in the Department of Home Economics, on one-half time, for ten months, beginning September 1, 1924, at a salary of fifty dollars ($50) a month. (June 30, 1924)

Lloyd, B. L., (Miss), Instructor in Anatomy, in the College of Medicine, for one year, beginning September 1, 1924, at a salary of eighty-three and one-third dollars ($83.33) a month. (September 6, 1924)[2]

Longwell, J. H., Assistant in Animal Husbandry, on one-half time, for nine months beginning October 1, 1924, at a salary of fifty-five dollars ($55) a month. (September 17, 1924)[2]

McCarthy, Cecelia, Loan Assistant in the University Library, for one year, beginning September 1, 1924, at a salary of one hundred dollars ($100) a month, subject to the rules of the Civil Service Commission. (July 24, 1924)[2]

McDermott, Agnes, Stenographer in the United States Smith-Lever Home Economics Extension, in the College of Agriculture, for one year, beginning September 1, 1924, at a salary of ninety dollars ($90) a month, subject to the rules of the Civil Service Commission. (August 9, 1924)[1]

McDermott, C. B., Assistant in Pharmacy, for one year, beginning September 1, 1924, at a salary of one hundred dollars ($100) a month. (September 13, 1924)[2]

McKay, H. D., Assistant in Sociology, on one-half time, for ten months, beginning September 1, 1924, at a salary of seventy dollars ($70) a month. (July 16, 1924)

McPherson, R. J., Medical Adviser for Men, in the Health Service Station, for one year, beginning September 1, 1924, at a salary of one hundred fifty dollars ($150) a month. (September 6, 1924)[2]

Marshall, I. M., Assistant Professor of Mining Engineering, for one year, beginning September 1, 1924, at a salary of two hundred fifty dollars ($250) a month. (September 20, 1924)[3]

Marshall, Vinnie E., Extension Specialist in Junior Club Work, in the U. S. Smith-Lever Home Economics Extension, in the College of Agriculture, for one year, beginning September 8, 1924, at a salary of one hundred seventy-five dollars ($175) a month. (August 8, 1924)[1]

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[1]Appointment made by Provost Babcock.
[2]Appointment made by Dean Daniels.
[3]Declined.

Mayo, Margarita de, Assistant in Romance Languages, for ten months, beginning September 1, 1924, at a salary of one hundred sixty dollars ($160) a month. (June 6, 1924)

Miller, Walter M., Assistant in Mathematics, on two-thirds time, for ten months, beginning September 1, 1924, at a salary of one hundred dollars ($100) a month. (September 19, 1924)

Moore, E. S., Director of Dispensary, in the College of Medicine, on three-fourths time, for one year, beginning September 1, 1924, at a salary of thirty-five hundred dollars ($3,500). (July 26, 1924)

Moore, Laura A., Assistant in the Cafeteria in the Department of Home Economics, for one year, beginning September 1, 1924, at a salary of one hundred dollars ($100) a month. (August 30, 1924)[2]

Moore, R. F., Superintendent of Building Construction, in the Office of the Supervising Architect, for one year, beginning September 1, 1924, at a salary of two hundred fifty dollars ($250) a month, subject to the rules of the Civil Service Commission. (September 20, 1924)

More, Helen G., Assistant in the Order Department of the Library, on one-half time, for eleven and one-third months, beginning September 20, 1924, at a salary of fifty-five dollars ($55) a month. (September 22, 1924)

Morgan, N. D., Associate in Architectural Engineering, in the Department of Architecture, for one year, beginning September 1, 1924, at a salary of two hundred sixteen and two-thirds dollars ($216.66) a month. (August 22, 1924)[1]

Morgan, R. B., Special Field Assistant in the College of Agriculture, beginning July 1, 1924, and continuing until further notice, at a salary of two hundred twenty dollars ($220) a month. (July 16, 1924)

Morrison, S. W., Instructor in Pharmacy and Pharmacist in the State Hospital, in the School of Pharmacy, for one year, beginning September 1, 1924, at a salary of two thousand dollars ($2,000). (July 30, 1924)[1]

Mroz, R. J., Assistant in Orthopedic Surgery, in the College of Medicine, for one year, beginning September 1, 1924, without salary. (September 6, 1924)[2]

Müller, J. F., Research Assistant in Zoology, for one year, beginning September 1, 1924, at a salary of eighty-three and one-third dollars ($83.33) a month. (September 23, 1924)

Mumma, F. W., Typist in the Business Office, for one year, beginning September 1, 1924, at a salary of seventy-five ($75) a month, subject to the rules of the Civil Service Commission. (September 11, 1924.)[1]

Murray, G. Eloise, Assistant in Romance Language, for ten months, beginning September 1, 1924, at a salary of one hundred forty dollars ($140) a month. September 1, 1924)[1]

Newberger, Charles, Associate in Obstetrics, in the College of Medicine, for one year, beginning September 1, 1924, without salary. (July 31, 1924)

Newcomb, E. E., Assistant to the Director of Bands, for ten months, beginning September 1, 1924, at a salary of one hundred dollars ($100) a month. (July 26, 1924)

Ocenasek, J. C., Assistant in Pharmacy, in the School of Pharmacy, for one year, beginning September 1, 1924, at a salary of one hundred dollars ($100) a month. (July 30, 1924)[1]

Olech, Eli, Clinical Assistant in the Department of Oral Surgery, in the College of Dentistry, for one year, beginning September 1, 1924, without salary. (September 3, 1924)[2]

Olson, Hazel E., Assistant in Zoology, on one-half time, for ten months, beginning September 1, 1924, at a salary of sixty dollars ($60) a month. (September 12, 1924)[2]

Osborn, L. B., Assistant in English, for ten months, beginning September 1, 1924, at a salary of one hundred and sixty dollars ($160) a month. (September 13, 1924)

Palmer, M. Dorothy, Cataloger in the University Library for one year, beginning September 1, 1924, at a salary of ninety-five ($95) a month, subject to the rules of the Civil Service Commission. (July 24, 1924)

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[1]Appointment made by Provost Babcock.
[2]Appointment made by Dean Daniels.
[3]Declined.

Peterson, J. M., Assistant in Chemistry, on one-half time, for ten months, beginning September 1, 1924, at a salary of sixty dollars ($60) a month. (September 23, 1924)

Pettinger, N. A., Assistant in Crop Production, in the Department of Agronomy, for one year, beginning September 1, 1924, at a salary of one hundred dollars ($100) a month. (July 29, 1924)[1]

Punke, H. H., Scholar in Agronomy, for ten months, beginning September 1, 1924, at a stipendium of three hundred dollars ($300). (July 29, 1924)

Raffl, Alberta, Instructor in Architecture, for ten months, beginning September 1, 1924, at a salary of one hundred sixty dollars ($160) a month. (July 16, 1924)

Rappaport, Benjamin, Instructor in Pathology, in the College of Medicine, on one-half time, for one year, beginning September 1, 1924, at a salary of one hundred dollars ($100) a month. (July 31, 1924)[1]

Rosecrans, C. Z., Research Associate in Mechanical Engineering, in the Engineering Experiment Station, for one year, beginning September 1, 1924, at a salary of twenty-four hundred dollars ($2400). This appointment supersedes his previous one. (June 11, 1924)

Rudman, Leah R., Assistant in English, for ten months, beginning September 1, 1924, at a salary of one hundred fifty dollars ($150) a month. (July 21, 1924)

Scarlett, Marian B., Stenographer in the Office of the President, for eleven months, beginning October 1, 1924, at a salary of one hundred sixteen and two-thirds dollars ($116.66) a month, subject to the rules of the Civil Service Commission. (September 19, 1924)

Schell, Mary I., Instructor in Art and Design, for ten months, beginning September 1, 1924, at a salary of one hundred eighty dollars ($180) a month. (July 16, 1924)

Seifert, M. H., Assistant in Pharmacy, for one year, beginning September 1, 1924, at a salary of fourteen hundred dollars ($1400). (July 19, 1924)

Shaff, M. J., Tool room Attendant in the Foundry Laboratory, in the Department of Mechanical Engineering, for one year, beginning September 1, 1924, at a salary of eighty-five dollars ($85) a month, subject to the rules of the Civil Service Commission. (September 3, 1924)[2]

Sherwood, G. R., Assistant in Chemistry, on one-half time, for ten months, beginning September 1, 1924, at a salary of sixty dollars ($60) a month. (August 19, 1924)[2]

Simpson, L. P., Instructor in Business Law, for ten months, beginning September 1, 1924, at a salary of two hundred twenty dollars ($220) a month. (September 20, 1924)

Smith, H. L., Assistant in Mathematics, for ten months, beginning September 1, 1924, at a salary of one hundred fifty dollars ($150) a month. (September 19, 1924)

Smith, Mary M., Record Clerk in the Registrar's Office, for one year, beginning September 1, 1924, at a salary of eighty dollars ($80) a month, subject to the rules of the Civil Service Commission. (July 12, 1924)

Smith, May, Cataloger in the Library, for eleven and one-half months, beginning September 15, 1924, at a salary of one hundred dollars ($100) a month, subject to the rules of the Civil Service Commission. (September 15, 1924)[1]

Sorgatz, W. D., University Architectural Draftsman, in the Office of the Supervising Architect, for one year, beginning September 1, 1924, at a salary of two hundred dollars ($200) a month, subject to the rules of the Civil Service Commission. (September 20, 1924)

Sotier, A. L., Assistant in Chemistry, on one-fourth time, for ten months, beginning September 1, 1924, at a salary of thirty-five dollars ($35) a month. (September 22, 1924)

Souder, Mary A., Extension Specialist in Home Management, in Smith-Lever Service, for one year, beginning September 1, 1924, at a salary of one hundred ninety-one and two-thirds dollars ($191.66) a month. (August 8, 1924)[1]

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[1]Appointment made by Provost Babcock.
[2]Appointment made by Dean Daniels.
[3]Declined.

Spangler, R. E., University Architectural Draftsman in the Office of the Supervising Architect, for one year, beginning September 1, 1924, at a salary of one hundred ninety-five dollars ($195) a month, subject to the rules of the Civil Service Commission. (September 20, 1924)

Spicer, R. F., University Inspector of Building Construction, in the Office of the Supervising Architect, for one year, beginning September 1, 1924, at a salary of one hundred ninety-five dollars ($195) a month, subject to the rules of the Civil Service Commission. (September 20, 1924)

Springer, C. H., Instructor in General Engineering Drawing, for ten months, beginning September 1, 1924, at a salary of one hundred eighty dollars ($180) a month. (July 24, 1924)

Srout, Hester D., Assistant in the University High School, for ten months, beginning September 1, 1924, at a salary of seventy-five dollars ($75) a month. (August 8, 1924)

Stewart, L. O., Instructor in Civil Engineering, for ten months, beginning September 1, 1924, at a salary of one hundred ninety dollars ($190) a month. (July 24, 1924)[3]

Stewart, P. J., Instructor in Athletic Coaching, for ten months, beginning September 1, 1924, at a salary of one hundred fifty dollars ($150) a month. (June 16, 1924)

Streicher, M. H., Instructor in Anatomy, in the College of Medicine, on one-half time, for one year, beginning September 1, 1924, at a salary of eighty-three and one-third dollars ($83.33) a month. (August 18, 1924)

Talbot, Nell S., Instructor in English, and Assistant to the Dean, in the College of Dentistry, for eleven and one-half months, beginning September 15, 1924, at a salary of two hundredtwenty-five dollars ($225) a month. (September 17, 1924)[2]

Thompson, C. F., Assistant Superintendent of the Foundry Laboratory, in the Department of Mechanical Engineering, for one year, beginning September 1, 1924, at a salary of one hundred sixty-six and two-thirds dollars ($166.66) a month. (September 19, 1924)[3]

Tupy, L. T., Assistant in Accountancy, on one-half time, for ten months, beginning September 1, 1924, at a salary of sixty dollars ($60) a month. (August 30, 1924)[2]

Ulrey, Orion, Assistant in Farm Organization and Management, in the Agricultural Experiment Station, on three-fourths time, for one year, beginning September 1, 1924, at a salary of eighty-seven and one-half dollars ($87.50) a month. (July 12, 1924)

Vahlteich, H. W., Instructor in Physiological Chemistry, in the College of Medicine, for one year, beginning September 1, 1924, at a salary of one hundred fifty dollars ($150) a month. (August 18, 1924)[2]

Vandervort, John, Jr., Extension Specialist in Poultry, in the Department of Animal Husbandry, for eleven months, beginning October 1, 1924, at a salary of one hundred sixty-six and two-thirds dollars ($166.66) a month. (August 23, 1924)

VanDuzer, Mildred E., Stenographer in the Office of the Dean of the College of Engineering, for one year, beginning September 1, 1924, at a salary of eighty-five dollars ($85) a month, subject to the rules of the Civil Service Commission (August 15, 1924)[2]

Van Zanten, Alice, Assistant in the Order Department of the Library, for eleven and one-half months, beginning September 15, 1924, at a salary of one hundred eight and one-third dollars ($108.33) a month, subject to the rules of the Civil Service Commission. (September 15, 1924)[2]

Walborn, Madge O., Assistant in Chemistry, in the School of Pharmacy, for one year, beginning September 1, 1924, at a salary of one hundred dollars ($100) a month. (August 15, 1924)[2]

Walker, Freda F., Stenographer in the Agricultural College Extension, for one year, beginning September 1, 1924, at a salary of eighty-five dollars ($85) a month, subject to the rules of the Civil Service Commission. (September 3, 1924)[2]

Watkins, R. T., Assistant in Ceramic Engineering, for ten months, beginning September 1, 1924, at a salary of one hundred eighty-dollars ($180) a month. (September 19, 1924)

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[1]Appointment made by Provost Babcock.
[2]Appointment made by Dean Daniels.
[3]Declined.

Westman, A. E. R., Research Associate in Ceramic Engineering, in the Engineering Experiment Station, for one year, beginning September 1, 1924, at a salary of two hundred eight and one-third dollars ($208.33) a month. (September 15, 1924)[2]

Weyl, Celeste, Secretary to the Dean of the College of Dentistry, for one year, beginning September 1, 1924, at a salary of one hundred fifty dollars ($150) a month. (August 22, 1924)[2]

Williams, Emily, Assistant in Physiology, for ten months, beginning September 1, 1924, at a salary of one hundred thirty dollars ($130) a month. (August 21, 1924)[2]

Williams, Maude, Stenographer in the Department of Dairy Husbandry, on three-fourths time, for one year, beginning September 1, 1924, at a salary of seventy-five dollars ($75) a month. This appointment supersedes her previous one. (August 9, 1924)[1]

Wilsey, E. F., Instructor in Theoretical and Applied Mechanics, for ten months, beginning September 1, 1924, at a salary of one hundred ninety dollars ($190) a month. (July 16, 1924)

Wilson, Bertha, Secretary in the Department of Horticulture, for one year, beginning September 1, 1924, at a salary of one hundred fifteen dollars ($115) a month, subject to the rules of the Civil Service Commission. (July 16, 1924)

Wilson, David D., Instructor in Athletic Coaching, for ten months, beginning September 1, 1924, at a salary of one hundred eighty dollars ($180) a month. (July 22, 1924)

Winn, Louise, Assistant in the Order Department of the Library, on one-half time, for eleven and one-half months, beginning September 15, 1924, at a salary of fifty-five dollars ($55) a month. (September 11, 1924)[2]

Yates, Hazel, Secretary to the Dean of Men, for one year, beginning September 1, 1924, at a salary of one hundred dollars ($100) a month, subject to the rules of the Civil Service Commission. (July 26, 1924)

The Board adjourned.

H. E. CUNNINGHAM
Secretary

W. L. NOBLE
President

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[1]Appointment made by Provost Babcock.
[2]Appointment made by Dean Daniels.