universal spread of popular education, the only secure foundation upon which democracy can rest. A great feature of this movement has been the establishment of the state universities, whose evolution has been so rapid as to appear not gradual, but *per saltum;* in some cases they seem to have sprung forth fully armed, like Minerva from the head of Jove.

In some of the provinces of my own country we are paying you the sincere compliment of imitation. We have therefore a direct interest in hoping that you will place your institutions upon the broadest possible basis. By constantly turning the searchlight of an educational higher criticism upon the methods and subjects of instruction, what is relatively useless will gradually be eliminated, and what is useful will be preserved and strengthened. Signs are not wanting that the universities are realizing that their functions have not all been exercised, that the greater part of their power for investigation has been a talent uselessly hidden in the earth.

The unexampled annals of the discoveries of truth of the nineteenth century are written, and they chronicle largely the magnificent achievements of the universities of Europe. The century upon which we have entered, which has already witnessed profound extensions of knowledge, will be yet more remarkable, and in it shall not the American universities play an equally triumphant part? And when its record of mental conquests shall be completed, among those inscribed therein, I trust that this university, whose semi-jubilee we celebrate, and whose president is now being inaugurated, will have its name written in that book of intellectual life.

FRANK ALLEN

DEPARTMENT OF PHYSICS, UNIVERSITY OF MANITOBA, WINNIPEG, CANADA

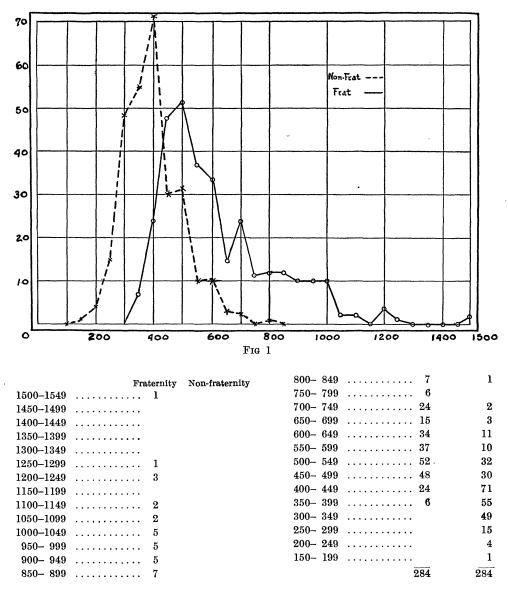
A COMPARISON BETWEEN FRATERNITY AND NON-FRATERNITY EXPENSES AT THE UNIVERSITY OF ILLINOIS

MUCH has been said and written recently, about the justification for the existence of the fraternity in the college and university, and, from all indications, the investigations are merely begun.

The purpose of this article is to set forth the results of a personal investigation into and comparison of the total expenses of about three hundred fraternity men and a like number of non-fraternity men at the University of Illinois. A member of each of the twentythree fraternities was asked to canvass his respective fraternity and secure from each eligible member the total amount of his expenses during the nine months of the preceding school year or 1908-9. If the man had no accurate account of his entire expenses he was asked to make as close an estimate as possible. The answers were obtained from the non-fraternity men by a personal canvass by three students among them either on the campus or at their rooms. For sake of accuracy of figures, those men were avoided who were working a considerable portion of their way. The figures and a graphical picture of the data are shown.

Attention is called to the fact that the two curves are very similar, and with the exception of the extremely high values for the fraternity expenses, the corresponding points of the two curves differ on the average by \$150, which seems to show that the average fraternity man at Illinois spends about \$150 more than the average non-fraternity man.

The 284 fraternity men spent \$166,725, or an average of \$587.06, while the non-fraternity men spent \$115,348.25, or an average of \$407.56. The modes of the curves show that the largest single group of fraternity men spent between \$500 and \$550, and that the largest group of the non-fraternity men spent between \$400 and \$450. Only three non-fraternity men were found who spent \$700 or more. Sixty-nine fraternity men spent \$700 or more. Forty-four fraternity men spent \$750 or more, while fourteen went to the \$1,000



mark or above. It was surprising to find so many fraternity men keeping a systematic expense account; in fact, more than half were able to give a fairly definite account of their expenses. There might be several reasons for this; so many fraternity men have a certain allowance from home and are compelled to give a fairly strict account of their expenditures. Others do it for their own information and, no doubt, the rest are influenced by these. The 284 fraternity men represent practically all the eligible material, for since the statistics are based on expenses incurred the preceding year, only those freshmen, sophomores and juniors who returned are eligible, the freshmen and new men of the current year being ineligible.

Concerning the fraternity data themselves, as a general thing, those fraternities which are national and reputably strong spent the most,

SCIENCE

while the men of the local organizations incurred no more expense on the average than the non-fraternity men. One strong fraternity had thirty eligible men, of which half spent \$800 or more, while seven spent \$1,000 or more. One local organization had no man spending more than \$600. Four had no man spending more than \$650 and eleven had no one exceed \$750, while practically all had men spending as low as \$400 or \$450.

What shall be our conclusions? If our figures are assumed to be perfectly representative, which they should be as far as comparisons are concerned, how much criticism is due the fraternal organizations?

We must not overlook the fact that the fraternity man is at an expense simply for membership in the organization, such as initiation fees, dues, assessments, social fees, etc., which we may set at \$50 for the average, many going far above that figure and many below it. This leaves \$100 per man to be accounted for. It is an open question as to whether this extra expense represents extravagance or not. Remembering that in all statistics results must be weighed and reweighed lest ridiculous conclusions be made, we must not overlook one point lest we suffer the same penalty. A large portion of the fraternity men who are extravagant would be so, even if they were not members of such an organization, and if this is true to the extent that it accounts, or more than accounts, for the extra \$100 per man, then the fraternity itself can not be blamed and may even be considered a real benefactor in this respect. Some insist that in many cases such extravagance is reduced by association with more thrifty brothers. There is very strong argument in favor of the declaration that this \$100 is more than accounted for, for the reason that a fraternity man does not care to spend his time where he would likely spend a lot of money, as much as he would if he were outside, because of his congenial companions and home in the fraternity house. But as I said before, this is an open question and will be decided in a multitude of ways.

But I do think the fraternity deserves a great deal of criticism wherever it allows the

extremely extravagant cases to exist. If we examine the curves, we shall notice nothing about the non-fraternity curve which corresponds to that part of the fraternity curve for the expenditures above \$1,000, although the two curves correspond at other points rather extraordinarily.

C. H. FORSYTH

UNIVERSITY OF ILLINOIS

MR. CARNEGIE'S TRUST FUND FOR PRO-MOTING PEACE

As has been announced in the daily papers Mr. Andrew Carnegie has given \$10,000,000 of the first mortgage bonds of the U. S. Steel Corporation of the value of \$11,500,000, the income to be used to hasten the abolition of international war. In his letter of gift, Mr. Carnegie says:

Lines of future action can not be wisely laid down. Many have to be tried, and having full confidence in my trustees I leave to them the widest discretion as to the measures and policy they shall from time to time adopt, only premising that the one end they shall keep unceasingly in view until it is attained is the speedy abolition of international war between so-called civilized nations.

When civilized nations enter into such treaties as named, or war is discarded as disgraceful to civilized men, as personal war (duelling) and man selling and buying (slavery) have been discarded within the wide boundaries of our Englishspeaking race, the trustees will please then consider what is the next most degrading remaining evil or evils whose banishment-or what new elevating element or elements if introduced or fostered, or both combined-would most advance the progress, elevation, and happiness of man, and so on from century to century without end, my trustees of each age shall determine how they can best aid man in the upward march to higher and higher stages of developments unceasingly, for now we know that as a law of his being man was created with the desire and capacity for improvement to which, perchance, there may be no limit short of perfection, even here in this life upon earth.

Let my trustees, therefore, ask themselves from time to time, from age to age, how they can best help man in his glorious ascent onward and upward, and to this end devote this fund.