

Summer 6-1904

Volume 13 - Issue 9 - June, 1904

Rose Technic Staff

Rose-Hulman Institute of Technology

Follow this and additional works at: <https://scholar.rose-hulman.edu/technic>

Recommended Citation

Staff, Rose Technic, "Volume 13 - Issue 9 - June, 1904" (1904). *Technic*. 246.
<https://scholar.rose-hulman.edu/technic/246>

Disclaimer: Archived issues of the Rose-Hulman yearbook, which were compiled by students, may contain stereotyped, insensitive or inappropriate content, such as images, that reflected prejudicial attitudes of their day--attitudes that should not have been acceptable then, and which would be widely condemned by today's standards. Rose-Hulman is presenting the yearbooks as originally published because they are an archival record of a point in time. To remove offensive material now would, in essence, sanitize history by erasing the stereotypes and prejudices from historical record as if they never existed.

This Book is brought to you for free and open access by the Student Newspaper at Rose-Hulman Scholar. It has been accepted for inclusion in Technic by an authorized administrator of Rose-Hulman Scholar. For more information, please contact weir1@rose-hulman.edu.



VOL. XIII.

TERRE HAUTE, IND., JUNE 1904.

No. 9

THE TECHNIC.

BOARD OF EDITORS.

Editor in Chief,

L. A. TOUZALIN.

Associate Editors,

| | |
|-------------------------------|----------------------------|
| GEORGE BENSON | Assistant Editor |
| FRED. B. LEWIS | Reviews |
| HOWARD A. MULLETT | Alumni |
| JOHN O. BLAND | Athletics |
| CHARLES B. FALLEY } | Local |
| CARL WISCHMEYER } | |
| ERWIN J. MINER } | |
| LEO F. DORN | Artist |
| <i>Executive Department.</i> | |
| RALPH C. BLANCHARD | Business Manager |
| HARRY W. EASTWOOD | Assistant Business Manager |

TERMS:

One Year, \$1.00. Single Copy, 15 cents.

Issued Monthly at the Rose Polytechnic Institute.

Entered at the Post Office, Terre Haute, Indiana, as second-class mail matter.

TO those who are leaving us at this time we sincerely dedicate this issue of THE TECHNIC. After the time spent here in the closest ties of friendship it seems a little sad to think of their leaving. But whatever happens the outgoing class will always find a friend in old Rose. Keep the Institute posted as to your location, as mutual advantage may be derived from it. In going, THE TECHNIC unites with the faculty, student body and all the friends of Rose in wishing you God speed.

AT the close of the school year '03-'04 a little retrospection will not be out of place. The Football team after losing men like Bowie, Williams, Pine and Cox seemed a serious issue. But when the call was given such a fine show of ma-

terial was made that new enthusiasm was aroused and the season closed with five games won out of nine played. The Basketball team played against the best teams in the state and held its own admirably. The Baseball team having lost but one man from the preceding year's team played excellent ball. The Track Team too made a splendid showing, losing the I. A. C. L. league championship by only three points. As far as athletics is concerned, last year was good, this year was better, and let us look forward to making next year better still.

The Symphony Club is expanding, having taken in the Mandolin Club. Expansion is the watchword. The Telegraph Co. has increased its list of active members, as has also the Camera Club. These organizations are all on the boom and it depends on those who are here next year to keep the boom a going.

CHARLES F. SCOTT who delivered the commencement address graduated from the Ohio State University in 1885. He took a post graduate course in Johns Hopkins' University, and a little later entered the service of the Westinghouse Electric and Manufacturing Co., of which he is now chief electrician. In 1902-'03 he was president of the American Institute of Electrical Engineers, which is high tribute, considering how young a man Mr. Scott is. Mr. Scott has been identified in various ways in organizing societies for the advancement of engineering knowledge. His address dealt with the remarkable advance along mechanical and scientific lines.

MR. EDSON F. FOLSOM delivered the Alumni address. He graduated from Rose in 1892. Several years later he took the degree of M. E. at Cornell University. He has been engaged in engineering work since his graduation, both as an engineer and a manager. For the greater part of his time he has been with the Brown-Ketcham Co. of Indianapolis, Ind. He spoke of what a man could really do if he had the right end in view. Citing Mr. Carnegie as an example, he showed how from a poor boy Mr. Carnegie had risen to his present state by perseverance and pluck, not luck.

ATTENTION is called to the Index in the back of this issue. It will be seen that the names of contributors are in capitals, while the articles are in small type, thus giving a double index.

THE TECHNIC desires to express its appreciation of the courtesy of the *Gazette* in allowing the free use of its columns for commencement news and alumni address.

WE regret to write that Mr. Nelson, instructor in Chemistry, and Mr. Wadleigh, librarian and instructor in German, will not be with us next year.

THE baseball season is over and merit should be placed where it is due. The success of the season reflects great credit on the manager, Mr. Mullet, '04, and on the captain, Mr. Daily, '05, especially and the rest of the team generally. Two good men will be lost to the team in Randall and Bowsher of the class of '04.

THE Frontpiece of this issue is a group containing all the contestants in the I. C. A. L. league meet, which was held in this city this season under the auspices of the R. P. I. THE TECHNIC is indebted to G. A. Kelsall, '06, for this photo, as well as the one in Differentials.

The success of the track team speaks well for the management of A. W. Lee and H. R. Canfield, both of '06.

IN our April number we made mention of the Edison Medal which was established by the American Institute of Electrical Engineers on February 11, 1904. We have recently received a copy of the "conditions as set forth in the various sections of the Deed of Gift," and below we publish the provisions in accordance with which the medal is to be awarded.

"FOURTH: The Institute shall, so long as the requisite funds accrue from said investments so to be made by the Trust Company, annually cause to be executed a gold medal, and shall, through a committee to be duly appointed and authorized by it and known as the Edison Medal Committee, award said medal in accordance with the provisions of this clause.

"1. The medal shall be awarded to such qualified student as shall have submitted to the Institute, in accordance with the provisions of this deed and of the regulations which may be prescribed by the Edison Medal Committee, the best thesis or record of research on theoretical or applied electricity or magnetism.

"2. Each competitor for the medal, in order to be qualified, must have graduated and received a degree during the year for which the medal shall be awarded, in some course of study at some institution of learning in the United States of America or Dominion of Canada, which course of study shall include the branch of electrical engineering. The United States Naval Academy, and Military Academy are included within the institutions from which competitors may be qualified.

"3. Not more than two students may compete in any one year from any one institution of learning; nor may any student compete, unless duly presented for competition through the faculty of the particular institution at which he is a student.

"4. The course of study must be one normally representing not less than two years of continuous residence and work.

"5. The thesis or record must not exceed six thousand words, not inclusive of words employed in explanation of accompanying drawings.

"6. No competitor shall be of greater age than twenty-five years at the day of his graduation in such course of study."

THE TECHNIC will be glad to furnish any further information in regard to this medal.

Engineering and the World's Work of To-Day.

By CHAS. F. SCOTT.



EVERYTHING about us, every element in our modern life is radically different from that which prevailed in the days of our grandfathers. The clothes we wear, the houses we live in, the food we eat, our modes of travel, our industrial and commercial methods are all different. The shoe-maker at his bench, and the hand loom in the home have given place to the great factory; the stage coach has disappeared and the express train takes its place; the horse is waning as the electric car and the automobile have come; Boston and Baltimore were further apart in the days of Washington than are New York and San Francisco in the time of Roosevelt.

What has brought about these stupendous changes in our domestic and national life and in our commercial and industrial customs, what has wrought this change in our very civilization? Many factors have contributed, but there is one underlying and fundamental element, the introduction of the steam engine and the production and use of Power. In the past men have depended upon the power of their own muscles or of domestic animals. The strength of the animal is as nothing compared with that of the engine—a single locomotive is the equivalent of a thousand horses. Note the change which a new source of power has made in conveyances in our cities. For unnumbered centuries men have ridden upon horse back or in carts or carriages drawn by horses. But the only improvements have been minor—in the harness or the type of carriage. Street cars running on rails were not common until the days of our own grandfathers. But in the past score of years there has been a change more radical than in twenty centuries before. The electric car with its higher speed, its longer travel, its increased comfort is not limited by the power and speed and endurance of the horse, but it has a new source of power relatively unlimited, inexhaustable and untiring.

The new epoch which has been developing dur-

ing the nineteenth century is the Epoch of Power. It is mechanical power which operates the railroad and the steamship, the mill and the factory, the elevator and the automobile.

Electricity, which has so quickly taken its place as a most important factor in our daily life, is usually only an agent for carrying and applying the power of the engine or the water fall.

It is the engineer who has to do with the utilization and adaptation of Nature's forces and materials, and it is, broadly speaking, to Engineering that profound changes of the past century are due, and upon it depends the operation of the intricate machiney, which is the material basis of our modern life. Engineering, therefore, is fundamental to the world's work of today.

The new epoch has not only brought about a change in things and in methods, but it has made necessary a change in men. Once men did their own work, now they direct power, they run machines which do the work. In the steel mills of Pittsburg the man who runs the electric crane lifts 50 tons of liquid steel with less effort than a laborer carries a board. Once the skill of an artisan was supreme, now it is the man who can devise a machine to do the work. Even the farmer is not independent as he used to be. Then he raised nearly all he used and his wife spun the family clothing; now he devotes himself to a few crops and buys clothing and tools and machinery and even much that he eats. Men come together and work in factories because there is power. Large bodies of men must act together as units, they must co-operate and they must have leaders.

All this requires organization in a way and to a degree which was never dreamed of in the past. The essential condition of success in the present and future is co-operation—mutual action. This is true not only of the individual factory or corporation, nor even of different communities, but it is a requirement of all. If the railroad or the coal mine or the flour mill ceases to contribute its

part, or if bakers or bricklayers or draymen do not do their part, all suffer. The relations between men are interdependent as never before. The greater problem of the present time is the social problem. Men adapt themselves more readily to the new physical and mechanical conditions than they do to the new social relations. Men learn to work with new tools more readily than they learn to work together. Leaders can develop new enterprises and organize machinery to form new industries more successfully than they can organize their men to work harmoniously. The conflicts between labor and capital arise because the new relations between men and in the new order of things have not been worked out.

The young man who steps forth from his *alma mater* to take his place in the world's work is to be especially congratulated if he is prepared by natural ability and by training to be an engineer. Never were his opportunities so great. But it is not enough that he know his mathematics and his theory nor that he have aptitude in workshop and in laboratory. He will have to do with men as well as with things. To accomplish results he must deal with men as well as with machines. He must learn to get along with others, to work with them, to lead them to co-operate in carrying out his purposes. That is the secret of leadership, not to drive and to force, but to inspire and to guide.

In the organization of great companies each man has his place and must do his part. There are tendencies to make men mere machines or automatons. But there is at the same time increased opportunity and need for individuality and for personal power. The great forces of our present times need great leaders. Engineering methods have made great changes in material things; likewise the same methods of combination and efficient co-operation must be applied to the organization of men.

The young man makes a mistake who does not take this broader view. To be great engineers

you must be great men; to be able to accomplish results with materials you must have the faculty of accomplishing results with men.

A significant indication of the new place which engineers have taken in the world's work is the gift of Mr. Andrew Carnegie to the National Engineering Societies. This great man, eminently successful, a great organizer, a philanthropist who distributes his wealth with the discrimination of a keen Scotchman, has seen what engineering has done and what it can do. He has seen that America's prosperity is conditioned upon its engineering supremacy, and he has given generously to strengthen and dignify the engineering profession. In a gift of one-and-a-half million dollars he has provided for a great engineering building in New York City, to be the headquarters of the national societies of mechanical, mining, electrical engineers and others who may join with them. Plans for the building are now under way. There will be provision for a great engineering library, for meeting rooms and a great auditorium suitable for national conventions of the engineering societies. There will be provision for secretaries and publication bureaus for issuing the technical transactions which go all over the world. But aside from all this is the fact that a great Temple of Engineering, a home for engineers, will dignify and give prominence to the profession, giving it new strength and new influence.

The part of engineering in the world's work of to-day is to provide the basis, the underlying physical and material basis for our modern life, upon which may be constructed industrial and commercial and social institutions which will contribute to higher and nobler life. The changes of the past century rest primarily upon engineering, but great as they are the future is still more promising and the young men of today are to be the factors in producing advances which are as yet but dimly foreseen.





Alumni Address.

EDSON F. FOLSOM, '92.

Mr. Folsom spoke in part as follows:

Young Gentlemen:—You stand to-day at the crest of the hill whose summit has been the goal of your worthy ambition. I congratulate you. The inchoative period of your life was passed in that serene valley of childhood which knows no evil,—where no anticipation of to-morrow's sorrows mars the careless freedom of the hour; where an innate innocence wraps one in pleasant dreams. It is the Garden of Eden as Adam and Eve found it in the beginning,—fragrant with purity and rich with beauty. There you developed in mind and body, passing from childhood to boyhood, until you felt the oppression of the confines of the garden wall. Without, your eye discerned a gentle slope that in the distance seemed attractive, and to that you turned your steps and began the ascent of the foot hills of Knowledge—you passed from the inceptive to the formative period. The thunder, the lightning, the wind of April storms could not daunt your enthusiasm—the growing roughness of the way did not discourage, but stimulated and strengthened you for that which was beyond.

After the foot hills, the mountains. Your hitherto easy ascent had gained your confidence, and after a short rest you attacked the path with renewed vigor. A mis-step here on a loose rock, a mis-judgment there of the sustaining power of

a fallen tree, were profitable lessons. You fell and were bruised,—you struggled up and on,—you overcame seemingly insurmountable obstacles,—you pressed forward to the success indicated by your presence here today.

Before this formative period each new impression had tended to obliterate the traces of its antecedents, so soft and pliable the mind of infancy, but here the plastic clay begins to set and takes and holds, with more or less distinctness, the good and evil prints, as one after another they are made by God and man and nature.

It is the period when the character is formed through the medium of the mind, and although the after days may round off the rough edges and patch in the corners, the original tracing always remains. Its subtle influence can never be effaced.

This formative period is, therefore, that which required the most diligent and watchful care, exercised by your good friends, the faculty (whose best concern for you you may have sometimes doubted); by those good citizens who have taken a fatherly (perhaps sisterly) interest in your welfare; and last and best,—that influence of your home which will permeate your lives until the end. But you have passed the formative period,—your character has been made. With the past you are not concerned except in so far as the lessons of experience may be of profit to you in that

future which now engages your attention. Tomorrow you begin the practical application of your theories; you begin the ascent of the snow clad peaks of wisdom as your fathers have done before you.

A number of years ago President Eliot, of Harvard University, expressed the opinion that it required a college man two years to overtake the fellow who had gone direct from grammar school to commercial or professional life; but from that time he forged ahead by reason of his superior mental training. President Eliot was right, and if you will keep this fact in mind you will not find it so hard to return to your discarded overalls and jumper to take rank with the apprentice boy. This is the surest and quickest way to master the details you must know if you would meet success. Your technical knowledge will make you see cause where the apprentice sees but effect; you will grasp at a glance what he works hours to find; and when your own apprenticeship is finished, and you have combined with the college training that practical schooling of the shop, the laboratory, or the field, you will be qualified as an engineer to work for rapid advancement—and I emphasize WORK.

Do not forget that the college education does not make the man any more than the clothes make him. If he has the right stuff in him he is going to succeed, college education or not. Do not be led into the belief that success will be your first caller. He may never come at all and I assure you he will come on no ordinary invitation. No matter what your business it will be necessary that you master each detail in order; that you begin at the bottom and work your way up if you are to fill your just part of the world's space.

Young man,

What is your plan?

Going to pull through?

Or will you lie down in the road

And let your load

Sink you out of sight
In the mud?

Have you white blood and pale,
That curdles at the hard word "Fail,"

And dares not face
The chances of the race?

Or have you red, clear red,
The good strong color

All the great have shed
In deed or thought,

For every triumph wrought
Out of what seemed full

Of the impossible?

Have you nerve

To serve

Until you can be master? To wait

And work outside the gate

Until you win

The strength to open it and enter in?

Have you the heart to meet

Defeat

Day after day,

And yet to hold to the way

That upward leads

And must needs

Be hard and rough

To make man tough

Of sinew and of soul

Before he sees the goal;

So, when it is attained,

He shall have strength to hold

What he has gained,

And use it so

That it to greater good shall grow?

Young man,

Think on these things,

What each one brings

Is as you choose it;

You may take

The stake,

Or you may lose it.

Start in

To win

And keep straight in the way

Unflagging to the end;

Whatever it may be

Is victory.



**OFFICIAL REPORT EIGHTEENTH ANNUAL
BUSINESS MEETING R. P. I. ALUMNI ASSO-
CIATION, THURSDAY, JUNE 9, 1904.**

Meeting was called to order at 3 P. M. in the Ordinary, Terre Haute House, by President R. L. McCormick, '91.

The following representatives of various classes were present:

- '86, Herbert W. Foltz, Chas. E. Scott.
- '87, J. B. Aikman.
- '88, J. B. Peddle, Geo. Davis.
- '89, V. K. Hendricks.
- '91, R. L. McCormick.
- '92, E. F. Folsom.
- '93, A. M. Hood, E. S. Johonnott.
- '94, Morton C. Andrews, Edward Riedel, O. R. Hedden.
- '96, O. E. McMeans.
- '97, J. J. Kessler, Jr.
- '98, Frank A. Whitten.
- '99, A. D. Kidder.
- '01, H. G. Clay, Martin N. Troll.
- '02, Fred. Fishback.
- '03, J. Simms Brosius, C. E. Smith, Marion W. Blair, H. Blair Petit.
- '04, Wm. H. Hazard, Merwin B. Miller, John T. Staff Jr., Robert F. Garrettson, Edw. H. McFarland, Wm. H. Randall, Chas. C. McCormick.

The report of Secretary of minutes of last meeting was read and approved.

The following financial report was submitted and accepted:

**REPORT OF TREASURER R. P. I. ALUMNI ASSO-
CIATION.**

ALUMNI FUNDS.

Receipts in 1903.

| | |
|---|---------------|
| Balance on hand as per last report | \$ 95 68 |
| Alumni dues received last meeting after re- port was submitted | 26 00 |
| | —————\$121 68 |

Disbursements in 1903.

| | |
|---|---------------|
| Expenses for Secretary-Treasurer,—Print- ing circular letters and envelopes . . . \$ | 3 55 |
| Paper and envelopes | 1 38 |
| Postage | 4 56 |
| Clerical work | 5 00 |
| | —————\$ 14 49 |
| Expense of Executive Committee,—Invi- tations and return postals \$ | 15 50 |
| Printing menu cards | 10 00 |
| Clerical work | 4 25 |
| | ————— 29 75 |

| | | |
|---|---------------|-------|
| Expense of Election Committee,—Print- ing postal cards \$ | 15 50 | 15 50 |
| Expense of Ways and Means Committee, —Postage and printed stationery . . . | 27 10 | 27 10 |
| Balance at close of 1902 | 34 84 | |
| | —————\$121 68 | |

Receipts for 1904.

| | |
|--|---------------|
| Balance from 1903 \$ | 34 84 |
| Annual dues for 1904, received to date . . | 55 00 |
| | —————\$ 89 84 |

BANQUET FUNDS.

Receipts.

| | |
|---|---------------|
| Balance on hand as per last report \$ | 17 80 |
| Received from those present last banquet . | 130 00 |
| | —————\$147 80 |

Disbursements.

| | |
|--------------------------------|---------------|
| Music for banquet \$ | 7 00 |
| Watson & Beggs | 125 10 |
| Piano rental | 3 00 |
| Head waiter | 1 00 |
| Balance in hands | 11 70 |
| | —————\$147 80 |

J. B. AIKMAN,
Secretary-Treasurer.

June 9, 1904.
Terre Haute, Ind.

Report of Election Committee was submitted by the chairman, Geo. M. Davis, '88, which showed the following elected by letter ballot:

President—John B. Peddle, '88.

Vice-President—E. S. Johonnott, '93.

Alumni Representative on Board of Managers—H. W. Foltz, '86, in place of F. F. Hildreth, whose time expires.

Nominations as follows were made for Executive Committee:

H. W. Foltz, chairman, '86.

A. M. Hood, '93.

J. Robert Riggs, '01.

On motion, which was passed without a dissenting vote, the Secretary was instructed to cast unanimous vote of the Association for above named as members of the Executive Committee for the ensuing year.

COMMITTEE REPORTS.

George H. Davis, chairman of the Executive Committee, called attention to apparent evidence that a considerable percentage of the Alumni membership failed to manifest a proper degree of interest in the annual election of the Representa-

tive from the Association on the Board of Managers.

Mr. A. M. Hood offered the following resolution, which was adopted: "That a special committee of three be appointed by the chair to draft a letter calling attention to the importance of this matter, which shall be enclosed with nomination blanks to be sent out by the Election Committee next year."

The President appointed the following special committee:

A. M. Hood, '93.
Geo. M. Davis, '88.
A. J. Paige, '02.

The following report from Alumni Representatives on the Board of Managers was read by the Secretary on account of the unavoidable absence of the gentlemen who prepared it, and by vote of the Association is herewith embodied in the minutes:

ST. LOUIS, MO., June 8, 1904.

Rose Polytechnic Institute, Alumni Association:

Mr. President and Gentlemen:—Your representatives on the Board are not prepared to submit this year a report corresponding to that tendered last year. We have not been able to carry out our expectation of making a visit to the Institute during the Spring term owing to conflicting engagements. Our report of last year has recently been placed in the hands of the entire Alumni membership in printed form, and your representatives very urgently request suggestions from the Alumni body, as to features of the Institute work, which you may desire to give especial attention. Expressions of opinion on the report of last year are also solicited, and Alumni members familiar with the work of other educational institutions are especially urged to let us have their views as to the relative excellence of the work at "Rose."

It is the present expectation of your representatives to prepare during the Fall term of the ensuing year a full report, and if the publication of this report prior to the 1905 meeting of the Association requires your especial authorization, we invite action by the Association to that end.

We trust to have for your next meeting a report which can be discussed by the Association while its material is fresh.

Yours respectfully,

F. F. HILDRETH, '94.
W. A. LAYMAN, '92.

The report as submitted by these same representatives on the Board of Managers at the

meeting of 1903, and consideration of which was postponed to this meeting, was laid before the Association. On motion unanimously adopted it was decided to take up the report by paragraph and make such changes as seemed advisable. No additions were made to it, but the Association considered it advisable to eliminate some of the features.

On motion of secretary the report as altered was unanimously adopted, with instructions to the secretary that he send copies of the same to the president of the faculty, and secretary of Board of Managers, with the statement, or suggestion, that this report expresses the views of the Association which so far as may seem practicable and wise, they would like to see carried out.

By resolution, the secretary was instructed to have the additional report which the Alumni representatives propose to submit next fall, printed and mailed to the membership of the Association.

The following resolution offered by A. M. Hood, was unanimously adopted:

"That the R. P. I. Alumni Association desires to express its high appreciation of the careful and devoted services to the finances of the Institute by Mr. Demas Deming, Treasurer, and his associates on the Finance Committee of the Board of Managers."

A unanimous vote of thanks was extended to Mr. Victor A. Hommel for his kindness in again remembering the Association with two cases of wine for the banquet, and secretary was instructed to communicate this to him by mail.

On motion the secretary was instructed to compromise the claim of the Technic Management in a manner mutually satisfactory to them and the Association for copies which were sent out last year to the entire membership through a misunderstanding.

Other business having been completed the class of 1904 was voted into membership of the Association.

At the banquet session later in the evening a letter from Dr. T. C. Mendenhall, addressed to the Association was read by Mr. J. B. Peddle, '88, and by a unanimous vote was incorporated in the minutes.

The secretary was instructed to acknowledge receipt of the same and express the thanks of the Association to Dr. Mendenhall for so kindly remembering us.

John B. Aikman, '87, who has served as secretary of the Association since 1892, offered his resignation and incorporated in it a resolution that he might be released sometime during the coming year and that the other officers of the Association and Executive Committee be empowered to fill the vacancy according to their best judgment. Unanimously adopted.

A vote of thanks was passed in recognition of the secretary's services in the Association

There being no further business the meeting was adjourned.

Respectfully submitted,

J. B. AIKMAN,
Sec'y-Treas.

Letter from Dr. T. C. Mendenhall.

ROME, ITALY, May 18, 1904.

PROFESSOR JOHN B. PEDDLE,
Rose Polytechnic Institute,
Terre Haute, Ind.

My Dear Professor:—

I am much gratified by your invitation to join the Alumni of the Institute at their Annual Banquet following the Commencement Exercises of this year, but even when one can boast of being in reasonably good health, a trip through the Mediterranean and across the Atlantic is not a matter to be thought of lightly.

I must content myself with the filtration through the nib of my fountain pen, of such words as I should like to speak if I could be present in person.

I have always been able to find at least a little good in everything and the present situation offers me the advantage of being able to go ahead, restricted only by my personal inclinations or physical capacity while you and the other Alumni are shielded from harm by the fact that you can skip as much as you like of what I write.

It can all be "read by title" or deposited in the wastebasket archives of the Alumni Association, without criticism, comment or harm.

In any event I must beg the charitable indulgence of my old friends who may listen to what I shall say, because it will fall so far short of what I ought to say and should like to say.

During the past three or four years I have been com-

pelled to spend my time in the most trivial and, often, humiliatingly useless occupations. I have deserted actual science for light literature and I am ashamed to say how many novels I have gone through, but in your presence I will confess that the list includes some of the works of my old colleague, Prof. Wickersham, which I have read with lively and sustained interest.

During these same years I have kept up, and even in an exalted degree, the interest in the Rose Polytechnic Institute which began with the foundation of the school more than twenty years ago.

Before its doors were opened or any member, of its faculty appointed, I accepted an invitation from its Board of Managers to visit them and give them my ideas of what such an institution should and might be. I remember a pleasant visit and a sympathetic reception of my somewhat crude and immature notions relating to the organization and work of an engineering school, for, young as it is, your Alma Mater was one of the "Pioneers."

Best of all, I remember an agreeable acquaintance with its managers which afterwards, out of an intimate association extending through several years, ripened into warm personal friendships which only death has terminated.

A year or two later, after the irreparable loss of its first president, I accepted, with many misgivings, the responsibility of completing its organization and directing its work.

My active participation in its affairs lasted only three years but I always think of them as among the most pleasing and satisfactory of my life. These years brought me into close, and I believe, always friendly relations with nearly all of those who may now be classed as the "early" graduates of the Institute, and yet my term of office was just short enough to make it impossible for any graduate to hold me entirely responsible for his failure to reach the goal of his ambitions.

Three quarters of the blame I am ready to take, with some of them. Although it is now fifteen years since my official connection with the Institute was severed, I have never been able to rid myself entirely of the feeling that I still have a sort of fifth wheel relation to it, and, indeed I may claim during all of this time a kind of "wireless" touch with it through its present devoted and efficient head, once my pupil and always my friend.

Its annual catalogue, which I always read with as much interest and care as if I had myself corrected its proof sheets, has kept me informed as to its continued growth and development and, what is of more importance, its steadfast adherence to the high standards of scholarship which have given it an enviable standing among the very best of its class.

I have had a personal pride in the success of its Alumni, scattered as they are over the civilized world, and almost

invariably doing their work with the same honesty, care and thoroughness to which they were held during their four years' course in the Institute.

Only a few weeks ago, I received a letter from one of the principal officers of one of the largest establishments of applied science in the world; indeed of its kind, the very largest; an establishment whose products are to be found in every quarter of the globe, and whose annual output is valued at many millions of dollars.

In this letter he told me something of the enormous growth and development of a business not yet twenty-five years old, whose very beginning I had watched with interest, and incidentally he spoke of the very large number of graduates of engineering schools who were employed in and had contributed to this development.

In one department of the establishment, as many as three hundred and fifty college men are employed, representing about seventy technical and engineering colleges in the United States and including, also, a number from English, French and German colleges.

This fact, he says, offers an excellent opportunity for a comparison of the qualifications and training of the "material" turned out by these institutions.

And now, I will quote, quite confidentially, and with the assurance that they shall not be used for advertising purposes his own words:—he says, "Among all the men we have placed during the past eight or ten years, I might say that representatives of two institutions have given us the best impression, although we have no special reasons for arriving at this conclusion. These two institutions are the Rose Polytechnic Institute and the ———." No! I will stop my quotation right there and not name the other one; it is enough for you to know that your Alma Mater is one of the two.

A few years ago it became my duty to notify a young man who had been leading a life altogether too strenuous, even for these piping times, that by a unanimous vote of the faculty he was expelled from the institution whose alumnus he had aspired to become. He seemed not greatly depressed by the information and as he cordially extended his hand to say "good bye" he fired his "Parthian Arrow" in the remark, "Well, Doctor, there are only two gentlemen in this faculty anyhow."

I hastened to beg him not to name the other as I did not wish my relations with my colleagues to be clouded by prejudice.

And so my quotation ends by leaving you conscious of your own rank, with an even chance for all the rest.

But, seriously, it is difficult to see how higher praise could be spoken. Even the phrase "although we have no special reasons for arriving at this conclusion" adds enormously, in my judgment to the meaning and value of his words.

I offer my sincere congratulations to the Institute upon a record and reputation second to none; and to the Alumni

for having done such honor to the mother from whom they came. Surely they ought to be loyal to her interests and ever ready to make any needful sacrifice in her behalf.

Again regretting that I cannot be with you in person and with best wishes for the success of every one of you, I am, as ever.

Yours faithfully,

T. C. MENDENHALL.

ALUMNI BANQUET.

Rose Polytechnic Commencement exercises at the Rose Polytechnic Institute closed with the banquet of the Alumni Association. This was the 20th commencement. In one more year the Institute will have reached man's estate. But the Alumni Association is two years younger. The banquet was the eighteenth annual banquet.

Each year is marked by a substantial growth in greatness and in grace. "Old Boy" is no longer as a form of greeting, wholly metaphorical. Some of the Alumni are talking now of entering their sons at the Rose.

Early in the evening there was a gathering of the class clans in the office of the Terre Haute House. At 9 o'clock they were marshalled and marched into the dining room where the tables, arranged in the form of a great tuning fork were artistically decorated for the banquet.

A feature of the recurring banquets is the program, menu and toasts, wherein is seen the fine Italian hand of Herbert W. Foltz, '86, who has been their architect and builder.

On the front cover this year was the Seal of the Rose on gilt paper. Within was what follows:

"Now good digestion wait on appetite and health on both."

| | | |
|-----------------------|--------------------------------------|---------------|
| | Little Necks. | |
| Olives | Sherry | Radishes |
| | Consomme in Cups. | |
| Planked Patomac Shad. | Duchesse Claret. | |
| | Cucumbers. | |
| Fried Spring Chicken. | | Champagne. |
| New Peas. | | New Potatoes. |
| Punch Romaine. | | Cigarettes. |
| | Lettuce with Tomato Mayonnaise. | |
| | Vanilla Ice Cream with Strawberries. | |
| | Assorted Cake. | |
| Roquefort Cheese. | | Crackers. |
| Demi tasse. | | Cigars. |

"Serenely full, the epicure would say—
 Fate cannot harm me—I have dined today.'"
 "Where are you, old companions trusty
 Of early days here met to dine?
 Come, waiter! quick, a flagon crusty—
 I pledge them in the good old wine.
 The kind old voices and old faces
 My memory can quickly retrace;
 Around the board they take their places,
 And share the wine and bouillabaisse."

Toastmaster, Mr. R. L. McCormick, '91.
 Certainly sir, all ready—not too fast—legs shaky—head
 queer—round and round—earthquaky sort of feeling—
 very."

Address of Welcome Dr. Mees
 "Mair freens an' less need o' them."

Naughty Four L. A. Touzalin, '04
 "De man dat thinks he knows hit all" have a mighty
 bad time gettin his neighbor to gree wid him."

The Faculty Prof. F. C. Wagner
 "Be to their virtues very kind
 And to their faults a little blind"

Our Better Halves Mr. Geo. Crane
 "Woman, the morning star of infancy, the day star of
 manhood, the evening star of age—bless our stars and
 may they always be kept at a telescopic distance."

Letter from Dr. Mendenhall.

The Right Way L. S. Rose, '92
 "I'm older'n you,—an' I've seen things and men
 An' my experunce—tell yu wut it's ben :
 Folks that worked through is the ones that thrive,
 But bad work follers ye as long's ye live ;
 You can't get red on't : jest as sure ez sin,
 It's allers askin' to be done agin."

Lest We Forget Geo. M. Davis, '88
 "A reasonable amount of fleas is good fer a dog—they
 keep him from broodin' over bein' a dog."

Just Anything Mr. W. C. Ball
 "You see when a feller's got one side of his head tater,
 he's mighty onsartin like. You don't swar me, fer I
 can't tell what minute the tater side 'll begin to talk."

"May God be with you
 'Till we meet again."

The banquet proper was an excellent one and was heartily enjoyed. With the cigars President McCormick rapped for attention and in a genial spirit called in turn on each of those whose names appeared on the toast list. The responses were largely reminiscent for to each and all the presence of President Mees, Dr. Gray and other members of the faculty, and especially the familiar faces of fellow classmates and students of years ago, recalled incidents of student days. Sombre hued colors, for into each life then as

now some rainy days will come, have washed out and faded away, and only Rose colored memories remained. Comradship and mutual helpfulness and kindly thoughtfulness for their Alma Mater and courage and hope, all as one, was the key in which all the talk was pitched. Perhaps the tuning fork form of the table arrangement in some unconscious way caused it.

A letter was read from Dr. T. C. Mendenhall, former President of the Rose, whose gracious personality will always be cherished by those whose rare privilege it was to be associated with him at the Institute as pupil or fellow teacher. For several years past Dr. Mendenhall has been seeking in retirement recovery of his health, broken by years of application to his work as teacher and scientist. He and Mrs. Mendenhall are now in Europe. The letter from him, read by Prof. John B. Peddle, was in acknowledgment of an invitation to attend the banquet and expressive of his regret at his inability to accept it. Hearty applause punctured the reading of it and on motion of Mr. Folsom, seconded by Mr. Hood, the letter was ordered spread on the records and the Secretary directed to acknowledge its receipt.

Following the regular toasts President McCormick called on Prof. Gray, Herbert Foltz, '86, Arthur M. Hood, '93, J. I. Kessler, '86, V. K. Hendricks, '89, and others.

Mr. John B. Aikman, '87, just before adjournment, in a heart to heart talk, stated that recent additions to the burdens imposed on him in his business necessitated his asking the association to accept his resignation of the position of Secretary-Treasurer, which he has held for a number of years. He asked that the selection of his successor be left to the Executive Committee. With many expressions of regret his request was reluctantly acceded to.

Victor A. Hommel, whose home is in Sandusky, O., sent to the banquet a case of wine produced on the paternal estate and his health was toasted in it.

At a business meeting of the Association held in the afternoon, John B. Peddle, '88 was elected

President, Edwin S. Johonnott, '93, Vice-President and John B. Aikman, '87, Secretary and Treasurer.

Executive Committee—Herbert W. Foltz, '86, Arthur M. Hood, '93, and J. Robert Riggs, '01. Mr. Foltz was also elected the Alumni member of the Board of Managers.

Following is a list of those present:

| | | | |
|----------------------------|----------------------------|--------------------------|-----------------------------|
| Thomas Gray. | F. R. Fishback, '02. | E. H. McFarland, '04. | Wm. H. Randall, '04. |
| F. C. Wagner. | C. E. Cox, '02. | M. N. Troll, '01. | John B. Peddle, '88. |
| Charles C. McCormick, '04. | Arthur J. Paige, '02. | G. H. Clay, '01. | Geo. M. Davis, '88. |
| Arthur M. Hood, '83. | Wm. C. Noelke, '04. | A. D. Kidder, '99. | E. F. Folsom, '92. |
| E. S. Johonnott, '93. | Merwin B. Miller, '04. | J. S. Royse, '94. | Herbert Foltz, '86. |
| Charles E. Scott, '86. | Ernest Bryon, '04. | Art. V. Tuller, '95. | V. K. Hendricks, '87. |
| Shelby S. Roberts, '98. | Robert F. Garrettson, '04. | C. C. Carr, '96. | Donn M. Roberts, '92. |
| Frank A. Whitten, '98. | J. N. Ross, '04. | A. V. H. Mory, '94. | W. H. Harris, '91. |
| Arthur C. Eastwood, '98. | L. A. Touzalin, '04. | M. C. Andrews, '94. | Mark D. Cory, '04. |
| J. J. Kessler, '97. | Ferd. W. Hahn, '04. | Harry Barbazette, '04. | A. W. Clement, faculty. |
| | | J. F. Regan, Jr., '04. | G. M. Crane, B. of Man'g'rs |
| | | F. M. Rumbley, '03. | Roy W. Hill, '04. |
| | | J. W. Ijams, '03. | H. Blair Pettit, '03. |
| | | John T. Staff, Jr., '04. | M. W. Blair, '03. |
| | | Clifton Brannon, '04. | C. E. Smith, '03. |
| | | W. H. Bowsher, '04. | J. S. Brosius, '03. |
| | | R. Whitten, '04. | W. C. Ball, '68. |
| | | Leo F. Dorn, '04. | C. L. Mees, '69. |
| | | Robert D. Landrum, '04. | R. L. McCormick, '91. |
| | | Irvin D. Toner, '04. | J. B. Aikman, '87. |
| | | Harry Smith, '04. | |





Commencement.

PROGRAMME.

On June 9th the Twentieth Annual Commencement was held at the Rose Polytechnic Institute. Below is the program:

MUSIC.

PRAYER.

MUSIC.

ALUMNI ADDRESS.

EDSON F. FOLSOM, '92.

MUSIC.

ADDRESS.

MR. CHARLES F. SCOTT,

Westinghouse Electric and Manufacturing Co.
"Engineering and the World's Work of Today."

MUSIC.

Presentation of Diplomas.

Awarding of Prizes.

Benediction.

MUSIC.

TITLES OF THESES.

For Degree of Mechanical Engineer.

The Equipment and Operation of a Well-Appointed Engine House on a Large Railroad System.

JESSE I. BREWER—M. S. '02.

For Degree of Master of Science.

Proposed Plan for the Substitution of Water for Steam Power for the Georgia Railway and Electric Company, Atlanta, Georgia.

ABE BALSLEY—B. S. '91.

For Degree of Bachelor of Science.

Test of Power Plant of the Columbian Enameling and Stamping Works.

WILLIAM H. BOWSHER AND MERWIN B. MILLER.

Test of Generator and Motor of the Columbian Enameling and Stamping Works.

EDWARD H. MCFARLAND.

Test of the Vigo Commission Company's Cold Storage Plant.

J. NEWTON ROSS, JOHN T. STAFF JR., CLYDE E. TIPTON AND IRWIN DEWITT TONER.

Test Upon Two Scotch Boilers and a Corliss Engine of the N. C. Kintz Lumber Company.

J. HARRY BARBAZETTE, JOHN F. REGAN, JR., AND HARRY SMITH.

A Series of Tests Showing Comparative Steam Values of Indiana Coals.

WALTER S. McNABB.

An Investigation to Determine the Best Setting of the Baffle Plates in a Sterling Water Tube Boiler at the Rose Polytechnic Institute Shops, Terre Haute, Indiana.

ERNEST BRYON AND WILLIAM H. HAZARD.

A Boiler, Engine and Dynamo, Test at St. Mary's Institute, St. Mary's-of-the-Woods, Indiana.

FERDINAND W. HAHN.

Test of the Power Plant at St. Mary's Institute, St. Mary's-of-the-Woods, Indiana.

ROSCOE WHITTEN.

Comparative Tests of Different Types of Arc Lamps.

ROBERT F. GARRETTSON AND ROY W. HILL.

Investigation of the Electrolytic Process of Rectifying Alternating Currents.

GEORGE H. CRAIN AND HOWARD A. MULLETT.

The Design and Construction of a Single Phase Series Motor.

LEO F. DORN AND WILLIAM H. RANDALL.

The Design, Construction and Test of a Two-Phase, Four-Wire, Artificial High Tension Transmission Line.

CLARENCE A. COHN.

The Determination of Young's Modulus of Concrete in Tension and Compression.

CLIFTON BRANNON AND CARSON G. FRENCH.

The Adhesion of Concrete Under Impact for Different Systems of Steel Reinforcement.

MARK D. CORY.

The Effect of Water and Mixing Upon the Strength of Concrete.

CHARLES C. MCCORMICK AND JAMES S. SHARP.

Designs and Specifications for an Office Building at the South-West Corner of Eighth Street and Wabash Avenue, Terre Haute, Indiana.

WILLIAM C. NOELKE.

Methods for the Separation of Silica, Iron and Aluminum.

LESLIE A. TOUZALIN.

Some Method for the Determination of Sulphur in Coal.

ROBERT D. LANDRUM.

The Catalytic Action of Iron in the Oxidation of Copper by Potassium Permanganate.

BROWN KATZENBACH.

The gold medal was awarded to Howard A. Mullett of Kansas City, Mo. Mr. Erwin J. Miner of Louisville, Ky., was awarded the bronze medal. Honorable mention was made in the Senior class of William H. Hazard of Terre Haute, and Carson G. French of Buchanan, Mich.; in the Junior class, John C. Sproull of Ansonia, O., Fred W. A. Haller of Cincinnati, O., Chas. R. Peddle of Brooklyn, N. Y., Lewis A. Snider of Terre Haute, Herbert L. Watson of Terre Haute; in Sophomore class, Carl Wischmeyer of Louisville, Ky., E. O. Kahlert of Louisville, Ky., George A. Kelsall of Louisville, Ky.; in the Freshman class, Harry M. Shickel of Sanford, Clifford W. Post of Gordon, O.

The gymnasium was very tastily decorated with roses and palms. Music was furnished by the Glee Club under Mrs. A. J. Adams and the Orchestra under Mr. Hugh McGibney.

The degree of Master of Science was awarded to C. E. Cox—B. S. '02.

ADDRESS OF WM. C. BALL,

President of the Board of Managers of the Rose Polytechnic Institute, in presenting the diplomas to the class of 1904.

IN ancient days, and not so very ancient either, the collegian, emerging from the pupal (the word is very like pupil, in sound and meaning albeit very different in derivation), or, as one may say, from the grubbing stage of existence, was wont to pause for a brief and not infrequently unhappy period before his butterfly flight, to display his strength of wing and air his knowledge for the delectation of his friends and well-wishers and the assembled multitude. Some years ago that was changed, not, however, with my entire approval, and now Commencement Day is the one day in all the four years' course when the men constituting the graduating class are only seen and not heard. But you and we have heard two admirable addresses by men who have won honorable places for themselves in those fields of high human endeavor to which your efforts are to be directed, commencing now, for is not

this Commencement Day? One has taken a day out of a busy life, coming from a distant state to talk to you. He has counselled you as an elder brother, using the store of his experience with the practicalities of professional life—the same in kind with which you are to be concerned. What degree you shall secure in the world institute where he has achieved distinction, rests with you. He has talked to you with that true spirit of comradeship always to be found in pursuits where the aim is so high and the joy over achievements is so great that selfishness is minimized if not eliminated. For this is true: A thing may be so great and so beneficent that none is so ready to applaud and congratulate him who finds it as he that was most diligent in search, yet failed.

The other one to whom you and we have listened with pardonable pride and pleasure is a member of that one family who broke the home ties only a few brief years ago. He comes back as some one or more of you may a few years hence at Commencement time bringing a message from the work-a-day world.

After what these two gentlemen have said, little remains for me. My function, strictly construed, is, in the name of and on behalf of the faculty and board of managers to present to each of you the diploma fairly earned, for you have covered the course and kept the faith. This is my part. Yet I cannot refrain here at the parting of the ways from saying a word of farewell.

It has been the aim of those to whose custodianship the affairs of Rose Polytechnic Institute have been confided in continuing line of faculty and board since it first took form in the brain and breast of him who founded it, and whose honored name it bears, to make the course so thorough as to give those in the world seeking young men to carry on their enterprises assurance that a graduate of the Rose was as well equipped as sound schooling could make him, together with the further assurance that there was a considerable foundation of sound boy, *mens sana in corpore sano*, to begin with, or he never could have survived. This sounds like flattery. So be it. What is it to be told that you have brains

and to know that a trained corps of professional teachers has been instructing you for four years, and all on an endowment by a philanthropist dead before you were born, but to notify you in good, round terms that all these things carry with them and impose on you responsibilities. To whom much has been given, of him will much be required, always was, always will be and always ought to be true. It will be a burning shame if each one of you does not accomplish something worth while and become some one worth knowing and remembering. Not necessarily great, in the sense of excelling all others. In the very nature of the case that is for the few. But your lives can be devoted to earnest and honorable professional endeavor. You can do the best that is in you at all times and in all places. That we have a right to expect. And we have the further right to expect that you will be good men and good citizens. No special course of training has been devoted to these things—the ethics of right living and square acting. Yet after all the whole course incidentally inculcates ethics, for it deals with the forces of nature in their manifold manifestations. What is more honest and steadfast and dependable than they? Could the Attraction of Gravitation, for example, be but transformed into an individual, what a man he would be! You would know where to find him. You would know where he was and what he was doing yesterday, where he is and what he is doing today, and could predict with confidence where he would be and what he would be doing tomorrow and each succeeding tomorrow until the dawn of doom's day. Dependable? Absolutely. Honest? As the day. What a friend he would be! Changing seasons would not change him. In sunshine and in shadow, in joy and in sorrow, when life ran strong and hope was high, as well as in time of strain and stress, always the same.

There is a moral lesson in the action of these great forces on whose conduct one can calculate with absolute assurance. Let the world be able to calculate with reasonable certainty on you as professional men and as men of honor and as citizens. Count character as capital, for it is.

Keep faith. Preserve your principles. Stand by your colors—a thing that ought not to be either difficult or disagreeable to you since Rose, color of everlasting hope, is your color.

SENIOR RECEPTION.

ON the evening of June 8th a reception was held for the benefit of the Seniors. The entire faculty and their ladies attended. A formal reception lasting about two hours was followed by a dance. Breinig's orchestra furnished the music for the evening. Several songs were sung by the Poly Glee Club, which were heartily enjoyed by the Alumni. Besides the Alumni many friends of the Seniors from the city and from among the underclassmen were present. Among the Alumni were V. K. Hendricks, '89, H. Masey, '94, O. E. McMeans, '96, Messrs. Sibley and Whitten, '98, C. A. Howell, '99, Robert Warren, '02,

John A. Cushman, W. D. Ingle, Ben. Pine, H. Blair Petit and Fred Rumbley, all of '03.

CAMERA CLUB.

The following were elected officers of the Camera Club for the year 1904-'05:

President—C. Wischmeyer, '06.

Vice President—O. L. Wood, '05.

Secretary-Treasurer—G. A. Kelsall, '06.

These men have taken an active interest in the club this past year, and next year will probably be an interesting one for the club members.

TELEGRAPH CO.

At a meeting held during the last week of May the annual election of the company's officers took place and the following men were chosen:

President—C. A. Speaker.

Vice President—H. J. Wilms.

Secretary-Treasurer—A. d'Amorim.



**R. P. I., 5, vs. BUTLER, 2.**

BUTLER proved to be an easy mark for Rose when the two teams met on May 11th. Both teams played a listless game, both at bat and in the field, with Rose having all the better of the argument. Daily was on the firing line for Rose and pulled himself out of several holes, especially in the second inning, when with a runner on third and only one out he found the next two batsmen. Butler scored one in the first, when Anthony walked, stole second and came home on Forsythe's hit to right. Rose went them two better in her half of the inning. Reed got four wide ones, went to second on Baylor's attempted sacrifice and scored on a fielder's choice.

Randall drove in two more runs by his long hit to left field for two bases.

Butler ran in one more run in the third on errors by Freudenreich and Baylor, and no more scoring was done until Demmitt singled in the fifth and was brought home on Stoddard's double, while Reed's hit over second scored Stoddard. Summary:

| ROSE. | | | | | | | |
|------------------------|----|----|------|------|----|----|---|
| A.B. | R. | H. | S.H. | P.O. | A. | E. | |
| Reed, c. | 4 | 1 | 1 | 0 | 9 | 3 | 1 |
| Baylor, l. f. | 4 | 1 | 2 | 1 | 0 | 0 | 1 |
| Bowsher, c. f. | 3 | 1 | 1 | 0 | 1 | 0 | 0 |
| Daily, p. | 4 | 0 | 0 | 0 | 0 | 4 | 1 |
| Randall, l. | 4 | 0 | 2 | 0 | 10 | 0 | 0 |
| Demmitt, 3. | 2 | 1 | 1 | 0 | 3 | 2 | 1 |
| Bland, 2. | 3 | 0 | 0 | 0 | 1 | 0 | 1 |
| Stoddard, s. | 4 | 1 | 2 | • | 2 | 4 | 1 |
| McBride, r. | 4 | 0 | 0 | 0 | 1 | 0 | 0 |
| Total, | 32 | 5 | 9 | 1 | 27 | 13 | 6 |

BUTLER.

| | A.B. | R. | H. | S.H. | P.O. | A. | E. |
|---------------------------|------|----|----|------|------|----|----|
| Anthony, s. | 3 | 1 | 1 | 0 | 1 | 2 | 1 |
| C. Barnett, l. f. | 4 | 1 | 0 | 0 | 1 | 0 | 0 |
| Forsythe, 2. | 4 | 0 | 1 | 0 | 0 | 3 | 0 |
| K. Barnett, l. | 4 | 0 | 0 | 0 | 9 | 0 | 0 |
| Springer, c. | 3 | 0 | 0 | 0 | 5 | 0 | 1 |
| Murray, 3. | 3 | 0 | 0 | 0 | 2 | 1 | 0 |
| Wheaton, c. f. | 3 | 0 | 0 | 0 | 1 | 0 | 0 |
| Adamson, p. | 3 | 0 | 0 | 0 | 2 | 4 | 1 |
| Brown, r. | 3 | 0 | 0 | 0 | 2 | 0 | 0 |
| Total, | 30 | 2 | 2 | 0 | *23 | 10 | 3 |

*Baylor out for leaving base before fly was caught.

SCORE BY INNINGS.

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | R | H | E |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| R. P. I. | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | * | 5 | 6 | 6 |
| Butler, | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 |

Two-base hits—Randall, (2); Stoddard, (1).

Base on balls—By Daily, (2); by Adamson, (3).

Struck out—By Daily, (9); by Adamson, (4).

Double play—Adamson to Barnett.

Wild pitch—Daily.

Hit by pitcher—Demmitt, (2).

R. P. I. 10, MILLIKIN UNIVERSITY, 6.

The team won its first out of town game on May 21st, when it defeated Millikin University at Decatur, Ill. Both teams were confident of victory, but Rose pulled the game out of the fire by bunching her hits in the sixth and seventh innings.

Millikin scored two in the first inning on Snyder's pass to first, followed by Wilson's triple and Schudel's base on balls.

Rose evened matters up in the third when two runs were made on Schudel's error and hits by Reed and Baylor.

Millikin again assumed the lead in her half of

the inning, and scored twice again on long hits by Moses and Wilson.

In the sixth and seventh innings the team had a batfest and before the umpire could call the game, seven scores were run over the plate on six hits and the game was won. Reed and Demmitt did the best batting for Rose, while Wilson did star work for Millikin, besides getting two triples out of four times at bat.

ROSE.

| | A.B. | R. | H. | S.H. | P.O. | A. | E. |
|---------------------------|------|----|----|------|------|----|----|
| Reed, c., | 5 | 1 | 3 | 0 | 11 | 1 | 3 |
| Baylor, l. f., | 5 | 0 | 1 | 0 | 0 | 0 | 0 |
| Bowsher, c. f., | 5 | 0 | 0 | 0 | 0 | 0 | 2 |
| Daily, p., | 5 | 2 | 1 | 0 | 3 | 1 | 0 |
| Randall, l., | 4 | 3 | 2 | 0 | 7 | 0 | 0 |
| Demmitt, 3., | 4 | 2 | 2 | 0 | 3 | 1 | 1 |
| Freudenreich, 2., | 5 | 0 | 1 | 0 | 1 | 2 | 1 |
| Stoddard, s., | 4 | 1 | 1 | 0 | 1 | 1 | 1 |
| McBride, r., | 3 | 1 | 0 | 0 | 1 | 0 | 0 |
| Total, | 40 | 10 | 11 | 0 | 27 | 6 | 8 |

MILLIKIN UNIVERSITY.

| | A.B. | R. | H. | S.H. | P.O. | A. | E. |
|---------------------------|------|----|----|------|------|----|----|
| Moses, c., | 5 | 1 | 2 | 0 | 12 | 3 | 0 |
| Snyder, 3., | 3 | 2 | 0 | 0 | 1 | 1 | 1 |
| Wasem, s., | 4 | 1 | 1 | 0 | 0 | 4 | 1 |
| Schudel, 2., | 3 | 1 | 0 | 0 | 3 | 1 | 4 |
| Wilson, l., | 4 | 0 | 2 | 0 | 8 | 0 | 1 |
| House, lf., | 4 | 0 | 0 | 0 | 3 | 0 | 0 |
| McDavid, r., | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| McGaughey, c. f., | 4 | 1 | 1 | 0 | 0 | 0 | 0 |
| Hill, p., | 4 | 0 | 0 | 0 | 0 | 4 | 0 |
| Total, | 35 | 6 | 6 | 0 | 27 | 13 | 7 |

SCORE BY INNINGS.

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | R | H | E |
|---------------------|---|---|---|---|---|---|---|---|---|----|----|---|
| R. P. I., | 0 | 0 | 2 | 1 | 0 | 4 | 3 | 0 | 0 | 10 | 11 | 8 |
| J. M. U., | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 6 | 6 | 7 |

Two-base hits—Reed, (2); Demmitt, Moses.

Three-base hits—Wilson, (2).

Base on balls—By Daily, (1); by Hill, (2).

Hit by pitcher—By Daily, (1); by Hill, (1).

Struck out—By Daily, (10); by Hill, (10).

Stolen bases—Reed, Baylor, Randall, (4); Demmitt, McBride, Moses, (2); Wasem, (2); Schudel, (2); Wilson, (1).

Umpire—McKee.

INDIANA, 9; R. P. I., 2.

On a sloppy field the Poly team again went down in defeat before the State University team in a game which though ragged in spots was interesting from start to finish. With Daily and Boyle as the opposing pitchers, the game was commenced by Indiana scoring one on a series of hits by O'Donnell and Boyle. Indiana took a fancy to Daily's curves in the fifth inning and landed at will on almost anything he served up

to them, and before the three required outs were made, Indiana had six more runs and five hits to her credit. Such a lead was sufficient to dishearten any team, but the boys pegged away at a forlorn hope, which was raised to a considerable degree in the eighth inning, when Demmitt knocked the ball over the right field fence for a home run and with one man on base. But it was a forlorn hope, as there was nothing doing from there on, and the game was closed by Reed's long fly to Ross. Boyle's pitching was a feature. He had perfect control and speed at will. He is undoubtedly the best pitcher the Rose men have been up against this year, and it was mainly his pitching which won the game for the State University team.

R. P. I.

| | A.B. | R. | H. | S.H. | P.O. | A. | E. |
|---------------------------|------|----|----|------|------|----|----|
| Reed, c., | 5 | 0 | 0 | 0 | 8 | 1 | 0 |
| Baylor, l. f., | 3 | 0 | 1 | 0 | 1 | 0 | 0 |
| Bowsher, c. f., | 3 | 0 | 0 | 0 | 2 | 0 | 0 |
| Daily, p., | 3 | 0 | 0 | 0 | 1 | 1 | 1 |
| Randall, l., | 1 | 0 | 1 | 0 | 3 | 0 | 0 |
| Demmitt, 3., | 3 | 1 | 1 | 0 | 1 | 3 | 0 |
| Freudenreich, 2., | 4 | 0 | 0 | 0 | 5 | 1 | 0 |
| Stoddard, s., | 4 | 0 | 2 | 0 | 2 | 5 | 0 |
| McBride, r., | 3 | 0 | 0 | 0 | 4 | 0 | 0 |
| Bland, r., | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| Total, | 29 | 2 | 5 | 1 | 27 | 11 | 1 |

I. U.

| | A.B. | R. | H. | S.H. | P.O. | A. | E. |
|--------------------------|------|----|----|------|------|----|----|
| E. Boyle, 2., | 5 | 1 | 2 | 0 | 4 | 4 | 0 |
| Bradbury, 3., | 2 | 1 | 0 | 1 | 0 | 0 | 1 |
| Clevenger, s., | 3 | 1 | 0 | 0 | 1 | 2 | 1 |
| Ross, lf., | 5 | 1 | 1 | 0 | 1 | 0 | 0 |
| Hare, c. f., | 5 | 2 | 4 | 0 | 1 | 0 | 0 |
| McIntosh, c., | 5 | 2 | 1 | 0 | 7 | 5 | 0 |
| O'Donnell, r., | 4 | 0 | 2 | 0 | 1 | 0 | 0 |
| Aikman, l., | 4 | 1 | 1 | 0 | 11 | 0 | 0 |
| J. Boyle, p., | 4 | 0 | 2 | 0 | 1 | 3 | 0 |
| Total, | 37 | 9 | 13 | 1 | 27 | 14 | 2 |

SCORE BY INNINGS.

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | R | H | E. |
|---------------------|---|---|---|---|---|---|---|---|---|---|----|----|
| R. P. I., | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 5 | 1 |
| Indiana, | 0 | 1 | 0 | 0 | 6 | 0 | 2 | 0 | 0 | 9 | 13 | 2 |

Two-base hits—Daily.

Base on balls—By Boyle, (5); by Daily, (4).

Struck out—By Boyle, (7); by Daily, (8).

Hit by pitcher—Randall, McBride, Clevenger.

Home run—Demmitt.

Stolen bases—McBride, Baylor, Hare, Ross.

Wild pitch—Daily.

Umpire—Nelson.

DE PAUW, 1; R. P. I., 0.

Rose lost one of the prettiest games of the season at Greencastle on May 23d, when she played De Pauw University a 1 to 0 game.

Both sides played gilt edged ball, but DePauw bunched three of their six hits in the last inning and won what surely appeared to be an extra inning game.

Demmitt started in to pitch for Rose and he pitched the prettiest game of ball seen this year, not allowing a pass to first and striking out nine men, besides holding his opponents down to three scratch hits up to the last inning. Outside of Demmitt, no special player was a star, as everyone put up an article of baseball worth going miles to see.

Belknap hit a safe one in the second inning, but was caught trying to steal second, and the next men up retired in order.

Neither side got a man past second until the ninth inning, when Demmitt's three bagger, which barely missed being a home run landed the runner on third with two out. The necessary blow, however, was not forthcoming, and it was up to DePauw to score.

The first man up in the ninth was an easy out to Freudenreich, but Cavanaugh singled over second and got as far as third on Martin's slashing double to the left field fence. Then Belknap, made a hit, Cavanaugh crossed the plate with the only and winning run of one of the hottest games of the season. Score:

R. P. I.

| | A.B. | R. | H. | S.H. | P.O. | A. | E. |
|----------------------------|------|----|----|------|------|----|----|
| Reed, c., | 2 | 0 | 1 | 1 | 7 | 5 | 1 |
| Baylor, l. f., | 3 | 0 | 0 | 1 | 1 | 0 | 0 |
| Bowsher, c. f., | 4 | 0 | 1 | 0 | 1 | 0 | 0 |
| Daily, 3, | 3 | 0 | 0 | 1 | 1 | 1 | 0 |
| Randall, l., | 4 | 0 | 0 | 0 | 10 | 0 | 1 |
| Demmitt, p., | 4 | 0 | 2 | 0 | 0 | 2 | 0 |
| Freudenreich, 2, | 4 | 0 | 0 | 0 | 2 | 1 | 0 |
| Stoddard, s., | 3 | 0 | 1 | 0 | 1 | 2 | 0 |
| McBride, r., | 3 | 0 | 1 | 0 | 2 | 0 | 0 |
| Total | 30 | 0 | 6 | 3 | *25 | 11 | 2 |

DE PAUW.

| | A.B. | R. | H. | S.H. | P.O. | A. | E. |
|---------------------------|------|----|----|------|------|----|----|
| Martin, 3, | 4 | 0 | 1 | 0 | 1 | 2 | 0 |
| Preston, 2, | 4 | 0 | 1 | 0 | 1 | 6 | 0 |
| Holmes, s., | 3 | 0 | 2 | 0 | 2 | 0 | 0 |
| Belknap, c., | 3 | 0 | 1 | 0 | 3 | 1 | 2 |
| Sartain, l. f., | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| Watson, l., | 3 | 0 | 0 | 0 | 14 | 0 | 0 |
| Shirley, r., | 3 | 0 | 0 | 0 | 3 | 0 | 0 |
| Conley, cf., | 3 | 0 | 0 | 0 | 2 | 0 | 0 |
| Cavanaugh, p., | 3 | 1 | 1 | 0 | 1 | 4 | 0 |
| Total | 29 | 1 | 6 | 0 | 27 | 13 | 2 |

*One out when winning run was scored.

SCORE BY INNINGS.

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | R. | H. | E. |
|---------------------|---|---|---|---|---|---|---|---|---|----|----|----|
| R. P. I., | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 2 |
| DePauw | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 6 | 2 |

Two-base hits—Demmitt, Holmes, Martin, Preston.

Three-base hit—Demmitt.

Left on bases—Rose, (6); DePauw, (2).

Struck out—By Demmitt, (9); by Cavanaugh, (4).

Base on balls—By Cavanaugh, (2).

Double play—Cavanaugh to Watson.

First base on errors—Rose, (2); DePauw, (2).

Umpire—Nelson.

R. P. I., 13; I. S. N., 2.

Rose took another easy game away from the Normals when she played the teachers on Parsons' field. That it was a poor game no one will deny, but the grounds had just been ploughed and had not had time to settle, and accordingly, errors were plentiful when easy ones should have been the order of the day.

Flushed by their victories over Butler and T. H. H. S. Normal thought they had a cinch this time, but when Poly got down to work and made two scores in the second inning and double the amount in the next two innings, Normal stock went down until by a grand burst of that "never say die spirit" Normal scored on Freudenreich's error and hits by Saul and Nut. Normal ran another man across the plate on Freudenreich's error and Mitchell's single to right centre.

The game was marred by Reed being hit on the thumb by a thrown ball in the fourth inning and necessitating Demmitt's going behind the bat and Daily in to pitch, Bland taking Daily's place at third.

Rose scored almost at will, but for the most part played a listless game, as they knew they were up against an easy team and consequently were not forced to exert themselves to their best abilities. Score:

R. P. I.

| | A.B. | R. | H. | S.H. | P.O. | A. | E. |
|----------------------------|------|----|----|------|------|----|----|
| Reed, c., | 3 | 0 | 1 | 0 | 6 | 0 | 0 |
| Stoddard, s., | 4 | 1 | 0 | 0 | 0 | 0 | 1 |
| Baylor, l. f., | 6 | 2 | 2 | 0 | 0 | 1 | 0 |
| Daily, 3-p., | 4 | 2 | 0 | 0 | 1 | 5 | 1 |
| Demmitt, p.-c., | 4 | 2 | 0 | 0 | 5 | 1 | 2 |
| Randall, l., | 5 | 3 | 2 | 0 | 8 | 0 | 0 |
| Freudenreich, 2, | 4 | 2 | 3 | 1 | 4 | 1 | 3 |
| McBride, r., | 4 | 1 | 0 | 0 | 1 | 0 | 0 |
| Miner, cf., | 4 | 0 | 1 | 0 | 1 | 0 | 0 |
| Bland, 3, | 3 | 0 | 1 | 0 | 1 | 2 | 0 |
| Total | 41 | 13 | 10 | 1 | 27 | 10 | 7 |

I. S. N.

| | A.B. | R. | H. | S.H. | P.O. | A. | E. |
|---------------------------|------|----|----|------|------|----|----|
| Saul, 2, | 4 | 0 | 2 | 0 | 3 | 2 | 1 |
| Spencer, s., | 5 | 0 | 0 | 0 | 2 | 0 | 4 |
| Plummer, 1, | 5 | 0 | 0 | 0 | 8 | 1 | 2 |
| Mitchell, 3-p., | 3 | 0 | 2 | 0 | 2 | 2 | 2 |
| Nut, c., | 4 | 0 | 1 | 0 | 8 | 1 | 1 |
| Halstead, lf., | 4 | 1 | 0 | 0 | 3 | 0 | 0 |
| Reeve, cf., | 4 | 0 | 1 | 0 | 0 | 0 | 0 |
| Medlock, r., | 4 | 0 | 1 | 0 | 1 | 0 | 0 |
| Phares, p-3, | 4 | 1 | 1 | 0 | 0 | 2 | 0 |
| Total, | 37 | 2 | 8 | 0 | 27 | 8 | 10 |

SCORE BY INNINGS.

| | I | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | R. | H. | E. |
|---------------------|---|---|---|---|---|---|---|---|----|----|----|----|
| R. P. I., | 0 | 2 | 4 | 0 | 1 | 0 | 0 | 2 | 13 | 10 | 7 | |
| I. S. N., | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 8 | 10 |

Struck out—By Demmitt, (6); by Daily, (3); by Phares, (1); by Mitchell, (7).

Base on balls—By Demmitt, (1); by Daily, (1); by Phares, (4); by Mitchell, (1).

Hit by pitcher—Spencer.

Stolen bases—Baylor, (2); Bland, Randall, (3); Freudenreich.

Passed ball—Nut.

Umpires—Hoffman, I. S. N., and Mullett, R. P. I.

BASEBALL SUMMARY.

During the past season the R. P. I. team made a record to be proud of, as they won six games out of ten played, beside scoring 67 runs to their opponents 46, and made 81 hits against 59 made by the other side. The games with their scores follow :

| | | | |
|----------------|----|-----------------------|---|
| Rose | 15 | Millikin University . | 8 |
| Rose | 0 | Indiana | 5 |
| Rose | 0 | Purdue | 5 |
| Rose | 15 | I. S. N. | 2 |
| Rose | 7 | K. State | 6 |
| Rose | 5 | Butler | 2 |
| Rose | 2 | Indiana | 9 |
| Rose | 10 | Millikin U | 6 |
| Rose | 0 | DePauw | 1 |
| Rose | 13 | I. S. N. | 2 |

Total, Rose . . . 67 Opponents . . . 46

Percentage of games won—.600.

Struck out—By Daily, 57; by Demmitt, 32; by opponents, 63.

DE PAUW CANCELLED.

Much to the disappointment of every one, the Decoration day game had to be called off on account of rain. Posters announcing the event had been out a week and a large crowd was expected to be on hand to cheer old Rose to victory, while DePauw had promised to bring over a hundred

rooters, and everything looked favorable for one of the best games ever seen in Terre Haute. But the weather man could not see it that way and the DePauw team slowly departed for home congratulating themselves on not having to play a game which meant almost certain defeat for the Methodists.

AVERAGES.

| BATTING AVERAGES. | AB. | H. | R. | Per Ct. |
|------------------------|------|----|----|---------|
| Demmitt | 35 | 12 | 12 | .343 |
| Reed | 36 | 12 | 8 | .333 |
| Stoddard | 37 | 11 | 7 | .297 |
| Baylor | 43 | 12 | 7 | .279 |
| Randall | 33 | 9 | 8 | .273 |
| Miner | 4 | 1 | 0 | .250 |
| Bowsher | 37 | 9 | 3 | .243 |
| McBride | 28 | 5 | 8 | .179 |
| Freudenreich | 36 | 5 | 2 | .139 |
| Daily | 37 | 5 | 8 | .135 |
| FIELDING AVERAGES. | P.O. | A. | E. | Per Ct. |
| Miner | 1 | 0 | 0 | 1000 |
| Randall | 76 | 0 | 2 | .975 |
| Reed | 90 | 18 | 9 | .923 |
| Daily | 6 | 23 | 4 | .879 |
| McBride | 12 | 0 | 2 | .857 |
| Demmitt | 16 | 19 | 6 | .854 |
| Stoddard | 22 | 11 | 8 | .805 |
| Freudenreich | 24 | 17 | 9 | .802 |
| Baylor | 15 | 1 | 5 | .762 |
| Bowsher | 8 | 1 | 3 | .750 |

MANAGERS FOR '04-'05.

At the last regular meeting of the athletic board the following managers were elected for the teams of next year :

| | |
|---------------------------------------|------------------|
| Football Manager, | A. W. LEE |
| Basketball Manager, | M. R. REED |
| Track Manager, | H. R. CANFIELD |
| Baseball Manager, | C. B. TROWBRIDGE |
| I. A. C. I. Representative, | W. S. HANLEY |

R. P. I., 63, vs. I. S. N., 54.

The track team more than redeemed the loss of the indoor meet by winning the dual meet with the Normals on May 14. Rose led in points (as well as otherwise) all through the meet and was never headed, although the winner of the meet was undecided until the last event was pulled off. In spite of the bad weather two state records

were broken, Wischmeyer raising the high jump record from 5' 4½" to 5' 5" and Green, of the Normal, added 2' to the hammer throw by hurling the weight 96'. In this latter event Brannon, of Rose, had hard luck, as every time he threw he put the weight over 100', but was disqualified for stepping outside the ring.

A. W. Lee's running was the feature of the day, the little captain getting three firsts and two seconds, in all 20 points to his credit. "Wishie" also got first in the running broad jump without appearing to exert himself in the least.

The surprise of the day was the hurdles, in which the Rose men clearly outclassed their opponents. Lee ran the hundred yard dash in .09⅔, but the track was found to be 10 yards short on being measured.

Up to the last event the score stood: Rose, 56; I. S. N., 42, with the quarter mile race as yet unrun and the broad jump unfinished and 3 points more necessary for R. P. I. to win. At the crack of the gun Lee was off like a flash, heading the bunch all around the curve, but began to give out about twenty yards from the finish. By a mighty effort he kept going and fell exhausted across the tape a bare half yard, winning from Benham, thus clinching first place for Rose.

Then came the news that Brannon had just won second place in the broad jump, and then the crowd went wild for old Rose and white now waved triumphant over blue, and Poly had won the meet with a score of 63 to 54. Summary:

90 Yards Dash.—1. Lee, R. 2. Benham, N. 3. Wil-
lien, R. Time, 9⅓".

Running High Jump.—1. Wischmeyer, R. 2. True-
blood, R. 3. J. Adams, N. Height, 5' 5".

880 Yards Run.—1. Johnson, R. 2. W. D. Adams, N.
3. Trueblood, R. Time, 2' 17⅔".

Running Broad Jump.—1. Wischmeyer, R. 2. Lee, R.
3. Kitch, N. Distance, 19' 10".

120 Yard Hurdle.—1. Douthett, R. 2. Beecher, N. 3.
Peddle, R. Time, 18".

Hammer Throw.—1. Green, N. 2. Payne, N. 3.
Cissa, N. Distance, 96".

220 Yard Hurdle.—1. Modesitt, R. 2. Unckrich, R.
3. Stopher, N. Time, 30".

Pole Vault.—1. Larkins, R., and Lee, R., tied. 3.
Spencer, N. Height, 9' 1".

220 Yard Dash.—1. Lee, R. 2. Benham, N. 3. Kitch,
N. Time, 25".

Mile Run.—1. Bryce, N. 2. W. D. Adams, N. 3.
Hahn, R. Time, 5' 20⅓".

Shot Put.—1. Beecher, N. 2. Byers, N. 3. Smith,
N. Distance, 33' 3¼".

Standing Broad Jump.—1. Beecher, N. 2. E. Bran-
non, R. 3. Hannum, R. Distance, 9' 9".

440 Yard Dash.—1. Kitch, N. 2. Lee, R. 3. Ben-
ham, N. Time, 56".

THE STATE FIELD MEET.

(BY CHAS. MCCORMICK.)

The second annual track and field meeting of the Indiana College Athletic League was held at Parson's Field Saturday afternoon, May 21, 1904, under the auspices of Rose.

On December 12, 1903, Rose invited the members of the league to participate in an athletic carnival at Terre Haute, consisting of a lawn tennis championship tournament, on May 19th and 20th, and the regular track and field meet on the 21st. As Franklin and Hanover were very weak on the track and in the field, the tennis idea offered an opportunity to all, and as was expected, each member of the league was strongly represented in some part of the carnival.

Thanks to perfect weather, excellent officials and a few arrangements on the part of the committee, the entire affair was a huge success and reflected credit on the management.

The tennis players from Earlham, Franklin and Hanover arrived on Wednesday evening and the tournament started off on time Thursday morning, as a result of the excellent arrangements made by Mr. Harry Eastwood and Prof. A. S. Hathaway, who were given charge of the tennis tournament.

Prof. Hathaway refereed and the players who were not engaged acted as linesmen.

On Thursday morning the doubles were played, Hanover defeating Earlham and Rose defeating Franklin, and in the afternoon Hanover defeated Rose, and by doing so won the state championship in the doubles.

In the singles Earlham defeated Franklin and Hanover defeated Rose. Hanover then defeated Earlham and won the championship in the singles.

In the field meet Wabash and Rose entered 18 men each and Normal 17 men, while Earlham came with 7 men and won the pennant after a most exciting and closely contested struggle.

The hero of the day was Addison W. Lee, who was easily the "Turk" of 1904. By running a dead heat with Sparks, of Wabash, in the 100-yard he equaled the record established by Paul Turk. C. R. Peddle reduced the high hurdle record from $17\frac{1}{5}$ seconds to 17 seconds flat, which was formerly held by Heintz, of Wabash.

Carl Wischmeyer raised the high jump record to 5 feet 7 inches, established by Turk at 5 feet 4 inches in Richmond.

Elmer Brannon of Rose, '07, beat the hammer throw record more than 6 feet by throwing it 100 feet and 3 inches.

Larkins of Rose, and Brunson of Earlham tied for first in the pole vault at 10 feet 1 inch, thereby raising the record 3 inches.

While Rose men did all the record breaking, except in the two tie cases, they were only able to collect 42 points, against Earlham's 45, and the Quakers again marched triumphantly from the field with the pennant.

On the evening of the 21st a subscription dance was given in the gymnasium for the visitors and the large room was filled with dancers.

The final score showed:

| | |
|------------------------------|------------|
| Earlham | 45 points. |
| Rose | 42 points. |
| Wabash | 20 points. |
| Indiana State Normal | 9 points. |

Below is given a summary of the places won and records made by the contestants, with the initial of the school each represents after his name:

- 100 Yards Dash.—1. Sparks, W., and Lee, R. (see note), $10\frac{1}{5}$ seconds. 3. Brunson, E.
 220 Yards Dash.—1. Lee, R., (24 seconds). 2. Brunson, E. 3. Sparks, W.
 440 Yards Run.—1. Wann, E., (57 seconds.) 2. Lee, R. 3. Maple, E.

- 880 Yards Run.—1. Wann, E., (2 minutes $10\frac{1}{5}$ seconds).
 2. Reed, W. 3. Johnson, R.

- One Mile Run.—1. Reed, W., (4 minutes $53\frac{3}{5}$ seconds).
 2. Adams, N. 3. Wann, E.

- 120 Yards Hurdle.—1. Peddle, R., (17 seconds.) 2. Douthett, R. 3. Maple, E.

- 220 Yards Hurdle.—1. Unckrich, R., ($29\frac{1}{2}$ seconds). 2. Maple, E. 3. Modesitt, R.

- Running High Jump.—1. Wischmeyer, R., (5' 7"). 2. Payne, N., (5' 3"). 3. Bond, E., (5' 1").

- Running Broad Jump.—1. Brunson, E., (20' $4\frac{3}{4}$ "). 2. Sparks, W., (19' 11"). 3. Spaulding, W., (19' $6\frac{1}{4}$ ").

- Standing Broad Jump.—1. Trestor, E., (10' 4"). 2. Sparks, W., (10' 2"). 3. Brannon, R., (9' 8").

- Shot Put.—1. Trestor, E., (35' $\frac{3}{4}$ "). 2. Byers, N., (33' $10\frac{3}{4}$ "). 3. Spaulding, W., (31' $9\frac{3}{4}$ ").

- Hammer Throw.—1. Brannon, R., (100' 6"). 2. Trestor, E., (88' 11"). 3. Bond, E., (86' 3").

- Pole Vault.—1. Brunson, E., and Larkins, R., (10' 1"), (see note). 3. Bond, E., (9' 9").

NOTE: Tie—Each contestant given 4 points.

TENNIS.

FIRST PLACE—DOUBLES.

| | | |
|-------------|------------|----------------|
| Earlham, } | Hanover, } | |
| Hanover, } | 6-3, 6-1. | Hanover, |
| Rose, } | Rose, } | 6-0, 6-1, 6-2. |
| Franklin. } | 6-1, 7-5. | |

SINGLES.

| | | |
|-------------|----------------|----------------|
| Franklin, } | Earlham, } | |
| Earlham, } | 4-6, 6-2, 6-4. | Hanover, |
| Rose, } | Hanover, } | 7-5, 6-3, 6-2. |
| Hanover. } | 6-1, 8-6. | |

SECOND PLACE—DOUBLES.

| | |
|------------|---------------|
| Rose, } | Earlham, |
| Earlham. } | 6-1, 3-6, 61. |

SINGLES.

| | |
|------------|----------------|
| Rose, } | Earlham, |
| Earlham, } | 7-9, 6-4, 6-3. |

The appended table shows the result of the tennis tournament of the I. A. C. L., which was held on the R. P. I. Campus May 18, 19 and 20. It will be seen that the order of places in both singles and doubles is Hanover, first; Earlham, second; Rose, third, and Franklin, fourth. The result is not what could have been expected under better circumstances. The fact is, that with a wet season and no suitable courts to play upon, our teams were in no condition to play. Lee,

who is our best player, as shown by last fall's tournament, was unable to play. Cargill came next. Our only preliminary match of this season was on the morning of the tournament between Sharp and Willien to decide who should be Cargill's partner in the doubles.

The Hanover men showed good volleying form, with accurate placing, but were not speedy nor especially good off the ground. A wind prevented any accurate lobbing, and the ground was

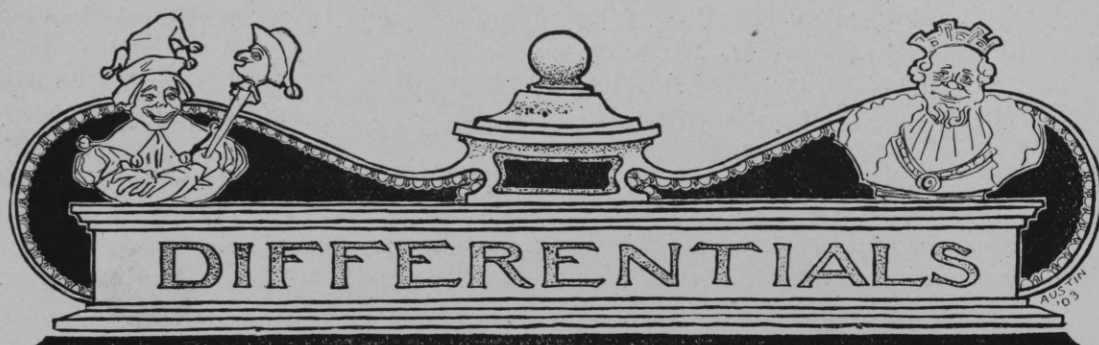
damp and rough, so that advantages were all with volleying tactics.

Thus Hanover did right in coming up to the net on every occasion, showing quickness and skill.

Altogether, the tournament was a useful object lesson to our players on the power of a volley game, especially in doubles.

A. S. HATHAWAY.





Junior—"Say, couldn't we have a dance every Saturday night this week?"

ESSAY ON MEN.

A man's life is full of crosses and temptations. He comes into this world without his consent, leaves against his will; the trip between the two is exceedingly rocky. The rule of contraries is one of the important features of the trip. When he is little the big girls kiss him, but when he is grown the little girls kiss him. If he raises a large family he is a chump, if he raises a small check he is a thief and a fraud, shunned like a Chinaman with the seven year itch. If he is poor he is a bad manager, if he is rich he is dishonest, if he is in politics you can't tell where to place him and he's no good to his country; if he doesn't give to charity he's a stingy cuss and lives only for himself, if he does give, it is for show, if he died young there was a great future ahead of him, if he lives to an old age he has missed his calling. He is introduced into this world by a doctor and to the next one by the same process. The road is rocky, but man loves to travel.—New Haven Echo.

Freshman, in Geometry:—"The square of the base of the perpendicular of a right-handed triangle is equal to the sum of the hippopotamus."
—(Ex.

The Indianapolis Journal says that counterfeit money is said to be quite plentiful in St. Louis this summer, especially twenty-five cent pieces.

in fact, good quarters are exceedingly hard to find.

Prof. Williams:—"Theoretically, this is practically the same."

By some strange coincidence both Friday and Bland missed the train at Decatur when the ball team came back, and stayed over until the next day. They report having had a good time.

Prof.:—"Where must A be so that AB may be equal to AC?"

Delle, in Calculus:—"Prof., is A a Normal?"
Lawton:—"Not by a darn site!"

Prof., in Mineralogy:—"How would you identify a specimen of a mineral?"

Soph.: "If you can kill two birds with it, it's a stone."

Canfield, '06, has been initiated into the M. E. P.

This sign was seen, painted on a shingle, in front of a farm house. It is all right, but looks like it needs a key:

"Pigs. For. Sail. Up. To. A. Pal 1."

Police were recently called out to quell a riot following a baseball game between Kentucky State College and Kentucky University teams.

Good Old Days; Good Old Days!

"Nunie" looked in that part of the MODULUS devoted to him and said: "Huh, I never did that."

"Shister's" version of "The Man Behind:"

When you go down to headquarters
And you play the slot machine,
Perhaps you win a dollar
And perhaps you lose fifteen.
Old Charley rakes the sheckles in
And smiles a smile serene;
For the man who gets the money
Is the man with the machine.

At a recent meet a cyclist is said to have col-

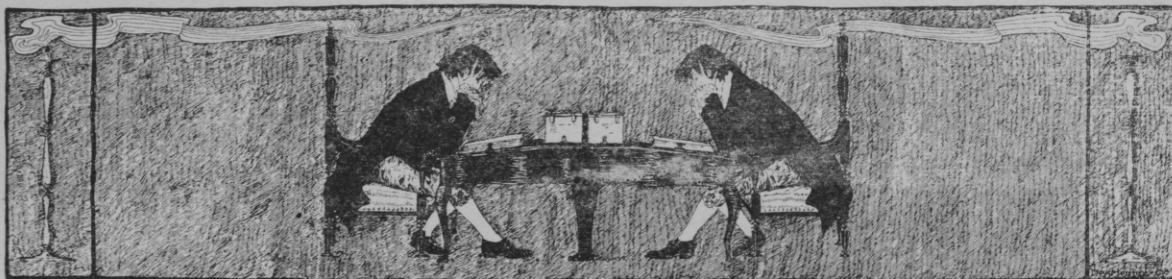
lided with an official. The blow set fire to a box of matches in the official's pocket, fired off a pistol in another's pocket and stopped a watch in a third. The cycle of mishaps stopped here—tired out. The official luckily escaped without a puncture.

"Skonsing" (in Spanish)—"I am the son of my father and the daughter of my mother."

Cook's suggestion for an Atlantic type threshing engine will doubtless be improved and experimented upon this summer by "Battle Ax" Johnnie.



Photo by Kersall.



REVIEWS

Electric Discharges Through Air.

A FURTHER contribution to this subject which has been investigated by various experimenters in recent years—mainly with two objects in view, viz.: the fixation of nitrogen and the production of ozone—is given in two patents granted to Mr. J. N. Alsop, of Owensboro, Ky., on May 3. He does not state exactly the chemical compound which he wants to get, but says that the air after treatment contains nitrogen peroxide and traces of ozone and “is in a state of ionization.” He states, however, explicitly for which purpose he wants to use his modified air. The object is to whiten and purify cereals and otherwise improve their quality. For instance, flour in very noticeably bleached, the dough then formed is drier and more elastic and sections of the loaves of bread made from such dough have a fine white color.

In his apparatus he uses essentially two sets of electrodes which in turn are separated to form an arc. When the arc between the first set of electrodes is formed by separating these electrodes, the electrodes of the second set are being brought together and when they make contact a short-circuit is produced and the arc of the first set is extinguished. The second set is then separated, etc.

Glimpses of Steinmetz.

IN the June *World's Work* Arthur Goodrich tells some interesting stories about Mr. Charles P. Steinmetz, chief engineer of the General Electric Company at Schenectady. “One of his ablest assistants spent a number of days of hard work in solving an intricate mathematical problem. When he had finished it he asked Steinmetz to work it out. The inventor grasped the problem at once, counted on his fingers a few times, and gave the correct answer without touching pencil or paper. Yet he remarked recently: ‘Mathematics is valuable only to obtain results. Mathematics for mathematics’ sake is foolishness.’”

Some years ago Steinmetz went into the Adirondacks with a hunting party of friends. Not caring to hunt, he was often left alone at a little lodge that was made the party’s headquarters. One night before the camp fire a

mathematical question came into his head. To settle it he needed a table of logarithms which could not have been found within miles of the camp. He remembered a few figures, and in a short time had worked out an entire table of logarithms for himself, and from it solved the problem. This mathematical sense, which was originally trained by hard study at Breslau, makes it possible for him to answer quickly the rapid fire of questions his aids hurl at him daily.

“The laboratory workers come to him constantly for advice and direction. Eighteen thousand employes stand ready to work out his ideas. With the men he is always genial and democratic. When any business matter needs settling he does it in determined fashion. He is as independent as he is good-natured. When the heads of the works made a rule against smoking in the factory, Mr. Steinmetz said he would smoke or leave. He did not leave. ‘He can accomplish more in an hour,’ said one of his assistants, ‘than I can do in a week.’ If some difficult problem needs solution at the works, it is nearly always taken to Steinmetz.

“Not long ago there was an explosion in a manhole in New York City, which made great trouble for an electric railroad. Many local engineers tried to find the cause of the trouble, and gave various unsatisfactory explanations. The matter was brought to Mr. Steinmetz’s attention. In a few moments he asked how certain adjacent wires in the manhole were covered. Here, indeed, was the trouble. It was simple, but no one else had thought of it. He takes the short cut to the essential thing. It is characteristic of all his work,”

The Steam Turbine for Marine Propulsion.

WE learn from *Engineering*, of London, that two unique opportunities will shortly be presented in England for comparison between the reciprocating engine and the steam turbine as the motive power of steamships—one of these opportunities being in the merchant service while the other is in the navy.

The Midland Railway Company is shortly to undertake the construction of four vessels for the new Heysham and Irish service, two of which are to have reciprocating en-

gines, while the other two will have turbines. All four vessels are to be alike in all respects with the exception of the propelling machinery, and the opportunities which will be presented for the comparative trials of the two systems of propulsion are thus unique.

In the navy, opportunity will soon present itself for the trial of two torpedo destroyers and two third-class cruisers, the only varying condition in each class of ships being again the propelling machinery.

Independent comparisons in the two classes of ships are of course essential, since owing to varying conditions such trials in one class of ships would have very little application to the other. One condition alone would vitiate all deductions which might be made for one class from experiments upon the other. This condition is due to the fact that while merchant ships operate normally under full speed and power, naval ships, in times of peace, operate under full power but a small fraction of the time and the operation of the turbine under reduced power involving as it does in ship propulsion reduced speed, introduces an element which is entirely foreign to any application of the turbine that has been made in stationary service, in which, while the power may vary, the speed remains constant. Inasmuch as the principle of the turbine involves a correct relation between the pressure of the steam and the velocity of the buckets, it will be seen that there is enough here to raise doubt regarding the entire applicability of the turbine to ships of war.

With ships which are twins in every respect except their propelling machinery it would be entirely feasible to send them to sea together and thus make the trials under precisely the same conditions of sea and weather. All conditions surrounding such trials would thus be identical with the single exception of the condition under test and the results will thus be under direct observation without all sorts of allowances and corrections for varying conditions.

The ships which are to be built by the Midland Railway are to have a displacement of 2,600 tons at 13 feet 6 inches draft in the case of the ships driven by reciprocating engines, and 2,400 tons at 13 feet in the case of the turbine-driven ships, the reduced weight being practically all due to the turbine system. The vessels are to be 330 feet long and have a beam of 42 feet.

Electrolytic Iron.

THE COMMERCIAL PRODUCTION OF CHEMICALLY PURE IRON BY ELECTROLYTIC PROCESSES AND ITS APPLICATIONS IN THE ARTS.

American Electrochemical Society.

THERE have been numerous attempts to employ the electrical current in the smelting of iron and steel, and some of these have shown sufficient merit to demand interested attention. Another application of electricity in a similar direction is the production of chemically pure iron by the method of electrolytic deposition, and this forms the subject of an interesting paper

presented before the American Electrochemical Society by Messrs. C. F. Burgess and Carl Hambuechen.

The deposition of iron by the electric current has been effected many times as a laboratory operation, but recent experiments in the laboratory of applied electrochemistry of the University of Wisconsin show that electrolytic iron can be produced in such quantities and at such a cost as to make it a material of commercial importance.

Until recently the only practical applications which have been made of the process of electroplating with iron have been in the so-called steel facing of dies and electrotypes. The coating thus deposited is not really steel, but consists of pure iron containing occluded hydrogen, the presence of the hydrogen being supposed to cause the hardness which renders it useful for these purposes. The manner in which the hydrogen is held is not definitely understood, but it may be present in quantities equal to several hundred times the volume of the metal, and it may be almost entirely removed by the application of heat.

The authors whose paper is referred to have undertaken a more extended research, and for more than two years they have carried on a series of investigations upon the production of pure iron in quantity by the electrolytic process. Experiments with a variety of iron salts at different current densities, temperatures, and working conditions have been made and the following method adopted as the most satisfactory:

"The electrolyte consists of ferrous ammonium sulphates; the current density at the cathode is six to ten amperes per square foot of cathode surface, and at the anode slightly less; the electromotive force for each cell is slightly under one volt; the temperature of electrolyte is about 30° C.; the anodes consist of ordinary grades of wrought iron and steel; the starting sheets for the cathodes are of thin sheet iron previously cleaned of rust and steel."

The cost of the process appears to have been determined at about one-half cent per pound of iron, not including fixed charges on the plant, it being thus not greatly in excess of the cost of refining copper, and chemical analysis shows the product to have a purity in excess of 99.9 per cent. The presence of the occluded hydrogen, as has already been said, makes the metal almost as hard as steel, and so brittle that it can readily be shattered with a hammer. After the hydrogen has been removed by heating the metal becomes softer, assuming properties of malleability and toughness similar to those of Swedish iron.

It is possible that the pure iron thus obtained may be found useful for electrical purposes. Experiments have shown that the hysteresis, permeability, and electrolytic resistance are greatly affected by the amount of hydrogen present, but quantitative investigations upon these points are as yet incomplete. It would be interesting to have metallographic studies made of various examples of electrolytic iron, since some useful comparisons with iron alloys might be made.

It having been shown that it is possible for electrolytic iron to be produced at small cost, the question naturally arises as to what uses there may be for it. The first suggestion which naturally presents itself is that on account of its purity it would serve as a basis for investigating the properties of iron and its alloys.

Starting with pure iron, alloys of a predetermined and definite composition can be produced, thus making such investigations of greater simplicity. At the moderate cost above given it may be used for manufacturing chemically pure compounds, and for standardizing laboratory solutions.—[*Eng. Magazine.*]