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MASS. INST. OF TECHNOLOGY
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CAMBRIDGE, MASS., TUESDAY, JUNE 4, 1935

Complimentary

560 M. I. T. DEGREES AWARDED

2,000 Alumni Back for Reunion

Annual Reunions of Alumni Were Held as Scheduled Yesterday

FACULTY JOINS IN Program Allows Participation In The Commencement Exercises Today

Testimonial Luncheon Given Professor Dugald C. Jackson

Speakers Were Dr. K. T. Compton, C. A. Stone, Gerard Swope, And Others

Two thousand graduates were estimated to have been brought back to the Institute for the first of the annual alumni reunions yesterday. Under the new plan, alumni will hold reunions annually rather than every five years, as has been the custom in the past.

Scheduled for the day before commencement, the reunion will allow alumni the opportunity of participating in events of the graduation program.

An outstanding feature of the reunion program this year was the Alumni Institute of Professional and Industrial Progress, with symposia and round table discussions for alumni and members of the Faculty of the various departments of the Institute. E.E. Department has Special Program

The electrical engineering department presented a special program in celebration of the semi-centennial of the granting by Technology of the first degree in electrical engineering in the United States. In addition to a symposium reviewing the advance of electrical engineering education in

(Continued on Last Page)
Alumni Reunion

Research Supporters Organization Formed Reveals Dr. Compton

At Alumni Dinner, Compton Says Employment Outlook Is Better

Formation of the Research Associates of Technology, a group of leaders and organizations in business and industry who will contribute to the financial support of important research, was announced by Dr. Karl T. Compton, president of the Institute, at the reunion dinner of Technology alumni at Symphony Hall last night.

The new organization, which has a founder membership of 24, was created in recognition of the three-fold value of research in stimulating leadership among members of the faculty as a method of teaching students to apply their resources of knowledge, and in developing new discoveries with far-reaching social benefits in industry, health, safety, standards of living and intellectual satisfaction.

"Research," Dr. Compton said in announcing the plan, "is one of the most powerful methods of teaching. It behooves the Institute to continue to develop this activity along sound lines so that our research will be well co-ordinated with the teaching program and highly productive in results of scientific and practical value."

In regard to Technology Loan Fund, Dr. Compton announced that in the future, it is proposed to increase somewhat the amount which can be loaned in especially worthy cases.

(Continued on Page 7)
Compton Address

Baccalaureate Service Given By Kinsolving

"Beginning Of Education Is To Appreciate Difficulty Of Finding Truth"

400 Seniors Attend Trinity

"It is of vital importance to see the difference between half truths and truths," declared Reverend Arthur L. Kinsolving at the baccalaureate service of Technology at Trinity Church, Sunday afternoon speaking to 400 M. I. T. Seniors.

The graduating class assembled on the steps of Rogers Building at 3:00 in cap and gown and marched to the Church led by Walter H. Stockmayer, of Rutherford, N. J., president of the graduating class, and Hal L. Bemis, of St. Davids, Pa., chief marshal.

Reverend Kinsolving urged humbleness and the ability to discern the truths by which we live. "Mankind is still being thwarted by lies and half truths," he went on, saying that the graduates of Technology had come to the maturity which enabled them to understand the importance of being of service in the world.

One of the richest times of his university years was when it convinced him of his ignorance, he stated, and gave the old definition of education as the sum of things we have forgotten. "The beginning of education," he continued, "is to appreciate the difficulty of finding truth."

(Continued on Page 6)
Baccalaureate

Stratton Award Won by Willcox

Abramowitz and Dobrin Receive Second and Third Prizes In Competition

Winners of the Stratton Prizes established by the late Dr. Samuel W. Stratton for the best technical papers read by members of the undergraduate professional societies, were announced at Commencement today by President Compton as follows:

First Prize, \$50, to Thomas N. Willcox, '36, a student in Course VI-A and a member of the American Institute of Electrical Engineers, for a paper on "Proof of Cosmic Rays."

Second Prize, \$30, to William L. Abramowitz, '35, a student in Course V and a member of the American Chemical Society, for a paper on "Radium Poisoning."

Third Prize, \$20, to Milton B. Dobrin, '35, a student in Course VIII and

(Continued on Last Page)
Stratton Prize

Graduates May Use Technology Club

Members of the graduating class wishing to make use of the facilities of the Technology Club of New York will be issued guest cards either before or after graduation, it has been announced.

According to the secretary, A. L. Weil, alumni are welcome to make the club their headquarters to meet their friends, or discuss employment opportunities with members, or staff.

Applications for guest cards should be made to the secretary.

Prospect of Position Better; 380 Seniors Presented Diplomas

Government Holding Loaded Dice Says President Compton

Threatening Federal Legislation Blamed For Scarcity Of Positions

"Threatening clouds of confiscatory and paralyzing federal legislation" were blamed for the present distress in the electrical industry by Dr. Karl T. Compton, President of the Institute, in his address to the graduating class at Commencement exercises today in Symphony Hall.

Referring to the electrical engineers, he declared, "Your situation at the present moment is not entirely happy, as indicated by the manner in which jobs in this field are conspicuous by their absence on account of the depressing effect on the electrical industry of the threatening clouds of confiscatory or paralyzing federal legislation and of government competition in the public utility game—the government holding loaded dice. But—the progress of electrical science is too important a thing to be stopped either by abuses in business management on the one hand or by ill-considered attempts to correct these abuses on the other.

Technology's President acted the role of prophet in holding up before the class of 1935 a bright picture of opportunity in a world which turns more and more to intellectual pursuits for advancement and less and less to the former physical pursuits which produced the heroes of a past age of geographic discovery.

(Continued on Page 7)
Compton

25 RECEIVE PH. D.'S

Governor Curley And Mayors Mansfield And Russell Among Guests

Alexander Macomber Is Leader Of Procession

380 Seniors Are Graduated After Colorful Parade To Symphony Hall

With prospects of positions in the professions of science and engineering better than at any time since 1929, 380 members of the class of 1935 marched to the sixty-eighth graduation ceremonies of the Institute at Symphony Hall today with a spirit of optimism that revived memories of graduations several years ago.

A large percentage of the graduates have already accepted positions and others have excellent prospects. Nearly all students awarded graduate degrees had been placed before graduation. A feature of the situation this year is that nearly all the men have secured positions of the type they desired in fields for which they were trained. Many of them had a choice of several positions.

566 Degrees Awarded

The total number of degrees awarded by President Karl T. Compton today was 560. There were 380 bachelor of science degrees, including 15 in architecture and three bachelors of architecture in city planning. The 180 advanced degrees included 25 doctors of philosophy, 11 doctors of science, 142 masters of science and two certificates.

(Continued on Last Page)
Commencement

Use Your Training to Aid Progress, Dr. Isaiah Bowman Tells Graduates

"Become an active citizen who through scientific training and privileged opportunity is prepared to do his special part in supplying the motive power of progress, and who participates creatively in that advance of mankind toward an ever more humane civilization" was the hope expressed by Dr. Isaiah Bowman, president-elect of the Johns Hopkins University, for the graduating class at the graduation exercises this morning at 11 A. M. in Symphony Hall.

"Other Men" was the title of the address in which Dr. Bowman sought to point out the place of responsibility of each individual citizen in our complex civilization of the present day. The greatest need of the times, he declared, is the putting into practice of the lessons that have been learned in the laboratory.

"Humane living," he argued, "always means the consideration of our welfare in relation to the welfare of other men. As individuals we strive to discover what is within us, what we are good for; as members of society, what we can do with and for others."



Dr. Isaiah Bowman

Pointing out that the discovery of the "possibility of indefinite progress"

(Continued on Page 5)
Bowman

Portrait of Dr. Rowe Displayed In Main Lobby; Donated By Alumni



Dr. Allan Winter Rowe, '01

A new portrait of the late Dr. Allan Winter Rowe, '01, donated by Alumni, is being shown in the Main Lobby of the Institute. The portrait was put up on Memorial Day and will remain for several days. It will then be placed in a permanent location.

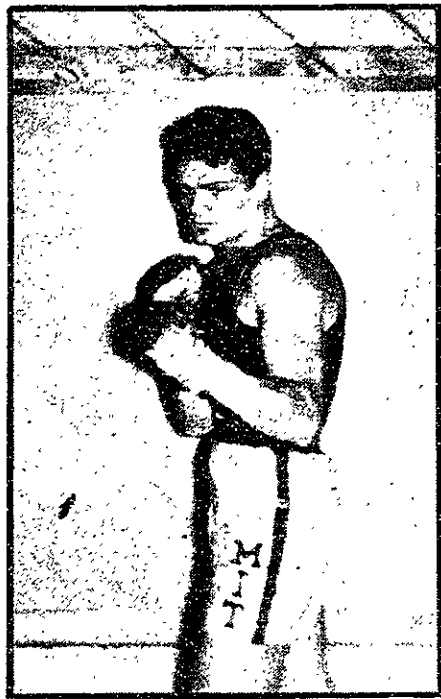
Dr. Rowe, former president of the Alumni Association and member of the Institute Corporation, was best known at the Institute for his activities as secretary of the Advisory Council on Athletics, which he helped found. He was also a member of the American Olympic Committee.

Research Worker

Dr. Rowe was noted for endocrine research, and was vice-president and trustee of the Memorial Foundation for Neuro-Endocrine Research, and former president of the Association for the Study of Internal Secretions.

Dr. Rowe was born on July 31, 1879. He graduated from Technology as a member of the Class of 1901 of which he was permanent secretary. He later received the Swett fellowship at Technology. He died December 6, 1934, after almost a month's illness.

James E. Casale, '35



Jimmy Casale, a consistent point winner, whose graduation will leave a big opening in the boxing line-ups next fall.

Boxers Have Two Openings To Fill

Jimmy Casale, Ned Collins Lost By Graduation; Severe Losses

The severest blow to the boxers caused by graduation will be the loss of James E. Casale, '35, the regular 165 pound mainstay. During the past season, Jimmy won three of his six fights, an unusually good percentage. In all of his other fights he gave his opponents terrific battles, staying the full three rounds against all of them.

Jimmy first came out for boxing in his freshman year, when he won a berth on the yearling team. During his Sophomore year, he remained more or less inactive as regards boxing. But in his Junior year he again returned to the ring, and together with Ned Collins, '35, the boys did the honors in the 165 and 175 pound classes. Last September, Ned started working as a P. T. instructor for Henry McCarthy here at Walker, and was thus automatically made ineligible. Casale, the sole Senior on the team, then turned in the best record of wins of any M. I. T. boxer.

Casale's place in the 165 pound class will probably be taken by Bob Thorsen, '37, who has seen action on the freshman team. Collins' berth in the 175 pound class will undoubtedly be again filled by Wally Mathesius, '36. Wally first came out for boxing late last fall, and developed so rapidly that in his last fight against Springfield, he knocked his opponent out in less than two minutes of the first round.

Two Best Rowers Now Graduating

Haines And Mowatt Members Of One Of Best Crews In Recent Years

With the graduation of Captain Al Mowatt and Guy Haines, Crew Coach Bill Haines will be losing two of his prize rowers of recent years. In his son Guy, he has developed one of the smoothest oarsmen in the country, who will be a strong contender for the single scull championship.

Guy Haines has rowed at Technology during his full four years, having stroked a light crew that was unbeatable for two years. This crew, the majority of which is of the class of '35, holds the record for the Henley distance on the Charles River course. As Sophomores, the group won the Field Day Race against the freshmen and then went on to replace the varsity 150's in that class. The boat was composed of Bob Olson, Dick Shaw, Will Rothen, Bob Fassoulis, John Miller, Pete Grant, George Agnew, Guy Haines, and Coswain Ed Clarke and with only one or two changes, the boat remained intact for the next two years.

Mowatt has a record of stroking the varsity heavy crew for three years. Although he was a member of the varsity in 1932, an injury forced him out the next rowing season, but he came back to stroke the varsity crew

SPORTS COMMENT

One of the questions which annually appears on the Senior ballot at Tech asks which is more highly prized, a straight "T", the highest athletic award possible to an undergraduate at the Institute, or membership in Tau Beta Pi, the honorary engineering fraternity. The vote almost always favors the latter, although it is not because one group is smaller than the other, for each lists approximately twenty-five Seniors this year. It would be interesting to know how Bill Rothen, Art King, and John Best cast their ballots, for they are the three Seniors who can boast of both Tau Beta Pi keys and straight "T's".

The list of Seniors who have competed in athletics, either varsity or intramural, is too long to print here, but we feel safe in stating that right down to the last one, each man would say that his participation in sports has brought him no regrets. It is true that Tech's athletic program is not a very intensive one, mainly because of lack of sufficient time. However, those men who now can look back on their four years at the Institute, undoubtedly feel that the time that they spent on athletics was not wasted. In later years they will look back with pleasure at the contacts they made with fellow students and with men from other schools.

Before bringing to an end our efforts in this column for the last time, for your writer happens to be a Senior, we believe that it is only fitting that we acknowledge the co-operation and assistance we have received from those with whom we have been associated. We extend our thanks to all the coaches and managers of the various sports, to the M. I. T. A. A., to the Advisory Council on Athletics, and to any other individuals who have helped us by giving us information which was of use in this column. One particular figure stands out in our mind as typically representative of the spirit of willingness to assist. He is a familiar sight to those who have had occasion to use the Field House or the Hangar Gym, and he will probably continue in his role for some time to come. We feel sure that we speak for the many who know him when we take this opportunity to extend a special vote of thanks to the Curator of the Field House, Jim Alexander.

JUST IN RETROSPECT: Joe Winiarski losing a bet on his ability to run the 220. . . Al Mowatt making the newspapers in the role of waiter to two Tech co-eds. . . Mort Jenkins' rise from comparative obscurity to the front ranks of collegiate distance runners. . . Johnny Colby, always ready to referee a football game. . . Red Brooks, with his ready smile tending to belie his pugilistic aspirations. . . Ned Collins, willing to give and take aplenty in the squared circle. . . Jack Flaitz and his agile tumbling despite his size. . . the familiar sight of co-Captains Oshry and Marderosian training together in the Hangar for their wrestling matches. . . Guy Haines' ability to earn a position in the varsity shell, despite his lack of weight. . . Larry Hall, leading the rifle team through one of its most successful seasons. . . Jack Orchard pacing the Sigma Chi team to the I. F. C. basketball championship. . . Jack, and Walt Stockmayer starring for their respective teams in the game between Sigma Chi and Walcott of the dorm league.

Editor's Note: At this time, we on the sports staff would like to publicly extend our thanks to the student who first originated and continued the writing of one of the most popular columns in this paper. The column we refer to is The Sports Comment, and the student author, Charles W. Smith, '35, better known to his friends as Smitty. Smitty has made Sports Comment the most popular and widest read columns of The Tech. Under Smitty, this column has been popularly received by all the readers, and we are happy to confess that his timely comments at times when full length stories were not on hand, pulled us out of many embarrassing situations.

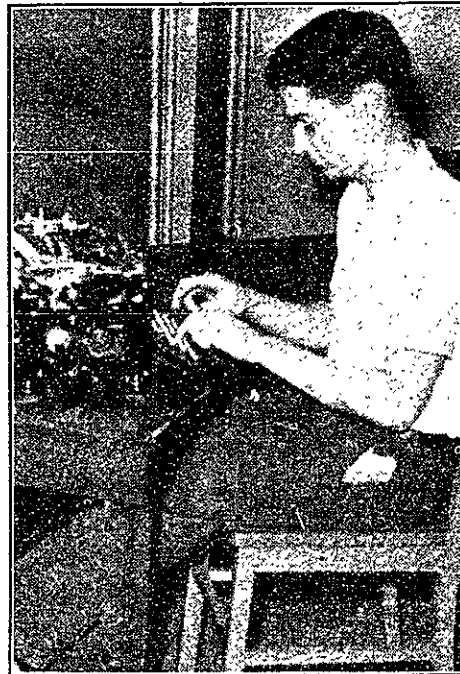
Those of you who have been out for baseball and basketball, both in intercollegiate and intramural competition, will no doubt remember that Smitty's name has been modestly kept in the background, even though he has played for the Beaver hoopsters and the Cambridge Collegians during the past year, as well as for interclass baseball teams for the past three years. In addition Smitty has been one of the main sparks on the Dorm baseball and basketball teams.

Smitty's biggest job in athletics here at the Institute has been his fight to have baseball recognized as a regular intercollegiate sport. To date, this sport has not gained the recognition, but if the same enthusiasm is shown in the next few years as during the past year when Smitty was the Collegians' playing-manager, it is almost a certainty that Smitty's efforts will not have been in vain.

the succeeding two years. Closely associated with Mowatt on this year's varsity crew have been Wid Bixby, Whit Stueck and Art Haskins. Ed Loewenstein, Sam Seeleman, Tom Graham, Dick Whitmore and Barney Freiberg, have all spent four years as members of heavy crews and at some times rowed with the first varsity.

Get Your Subscription After Graduation

The Tech



Charles W. Smith, '35

Racquetees Lose 3 By Graduation

Silverman, Draemel and Notman Close Careers Here At Technology

Jack Silverman, Fred Draemel, and James Notman will be missing from tennis lineups next fall. Silverman, and Draemel entered the Institute in their Junior year and were thus ineligible for intercollegiate competition until this year. However, this year they did hold down berths on the varsity team. Notman came out for tennis in his freshman year and won a berth on the team. He did not compete in his Sophomore year, but he returned in his Junior year and won a position which he continued to hold in his Senior year. In addition to tennis, Jimmy played on the hockey team in his Sophomore, Junior and Senior years. He also played field day football in his first two years here at the Institute.

Morton M. Jenkins Is Awarded His Fifth Straight T

Signal Honor Goes To New England Mile Champion

Other Athletic Awards Made

Over one hundred students were awarded letters for the respective sports in which they excelled as was announced last Saturday evening by the Advisory Council on Athletics.

In track, Morton M. Jenkins, '35, captain, of Watertown, has been awarded his fifth T—a signal honor—as the T is given only for outstanding athletic performance. Jenkins is New England mile champion, having won that event in the N. E. I. A. A. Track Meet this year and last. Jenkins is the first man to receive five T awards during his undergraduate career since Elmer E. Sanborn of the Class of 1922.

Other Technology track athletes to receive the T award are S. T. Johnson, '36 of Newton, captain-elect; W. R. Crout, '35, Milwaukee, Wis.; W. N. Stark, '35, Langhorne, Pa.; and J. R. Thomson, '37, Greenwich, Conn.

In crew, A. Q. Mowatt, '35 of Swampscott, captain of the varsity; B. N. Fassoulis of Syracuse, N. Y., captain of the 150 lb. varsity; E. R. Clark, Jr., '35, Kingston, Pa.; L. Guy Haines, '35 of Newton, son of head coach Bill Haines; A. L. Haskins, '35, Chicopee, Mass.; W. W. Stueck, '35, Great Neck, N. Y., received the T award.

T awards also were made to R. W. Forster, '35 of Albany, N. Y., captain, and F. D. Mathias, '35 of Westmount, Que., for exceptional work on the lacrosse team.

In swimming, R. J. Granberg, '35, captain, Chicago, Ill.; B. Vonnegut, '36, Indianapolis, Ind.; H. E. Heywood, '37, Gardner, Mass.; C. C. Dodge, '37, Hasbrouck Heights, N. J., received the T award.

William W. Cross, '35 of Johnstown, N. Y., President of the M. I. T. A. A. received a T for "exceptional services to athletics"; John B. Ballard, '35 of Chuquicamata, Chile, received an honorary appointment to the Varsity Club and a non-athletic T award.

Other athletic awards include for Track—"aTa"

- W. J. Bates, R. E. LeBlanc, R. E. Beckman, D. S. McLellan, T. E. Brown, W. O. Nygaard, D. Chalmers, G. D. Ray, E. P. Cooper, N. A. Sabi

Awarded 5th Straight "T"



Track Captain Mort Jenkins

- W. R. Crout, J. E. Talbert, G. S. Donnan, J. R. Thomson, A. C. Fantz, Jr., W. N. Stark, H. H. Guerke, W. H. Pulsifer, Jr., R. Hermann, A. L. Greenlaw, E. F. Jarrell, T. K. Graham, M. M. Jenkins, T. W. Blair, S. T. Johnson, C. L. Brooks, T. R. Kinraide

Crew "T crossed oar"—Varsity

- A. V. Hazeltine, N. A. Birch, A. Q. Mowatt, A. L. Haskins, J. R. Ferguson, L. G. Haines, W. W. Stueck, A. R. Hunt, R. H. Thorson

150 Lb. Varsity Crew

- E. R. Clark, Jr., J. M. Clifford, W. B. Beckwith, B. N. Fassoulis, A. W. Jaeger, G. P. Grant, R. J. Brauer, F. L. Phillips, A. J. Dolben

Junior Varsity Crew

- J. A. Easton, Jr., S. H. Seeleman, W. F. Bixby, R. A. Olsen, D. J. O'Conor, C. C. Lawrence, T. K. Graham, H. F. Hubbard, E. Loewenstein, E. L. Pratt

Rifle "T With Crossed Rifles"

- T. R. Kinraide, L. C. Hall, R. J. Greer, C. F. B. Price, R. F. Flood

(Continued on Page 3) Athletic Awards

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Tech Records Broken; I. C. 4 A. Meet

Scores 7½ Points, Thomson, Johnson Aid Tech Score

Third Largest Score Ever Collected By Institute Track Team

In 1921, 13 Points Scored; Dardrow, Individual Champ

Thomson, '37, Holder Of High Jump Record, Johnson, '36, Broad Jump

By Oscar F. Hedlund

Scoring 7½ points in the I. C. 4-A Meet held last Saturday at the Stadium, the third largest total of points ever collected by an Institute team, the Tech varsity track team finished a very successful season. Back in 1918, Tech scored 13 points and in 1921 the Cardinal and Grey team collected 10. That year Dardrow won the hammer throw, Tech's first individual champion. In 1911 P. W. Dalrymple tied with two others in the high jump at 6 feet. G. A. Drew won the hammer throw in 1924 with a throw of 156 ft. ½ inch. Hank Steinbrenner won the low hurdles at Philadelphia in 23.9, a record which still stands and now Tech comes to the front again in the 59th annual Track and Field Championship.

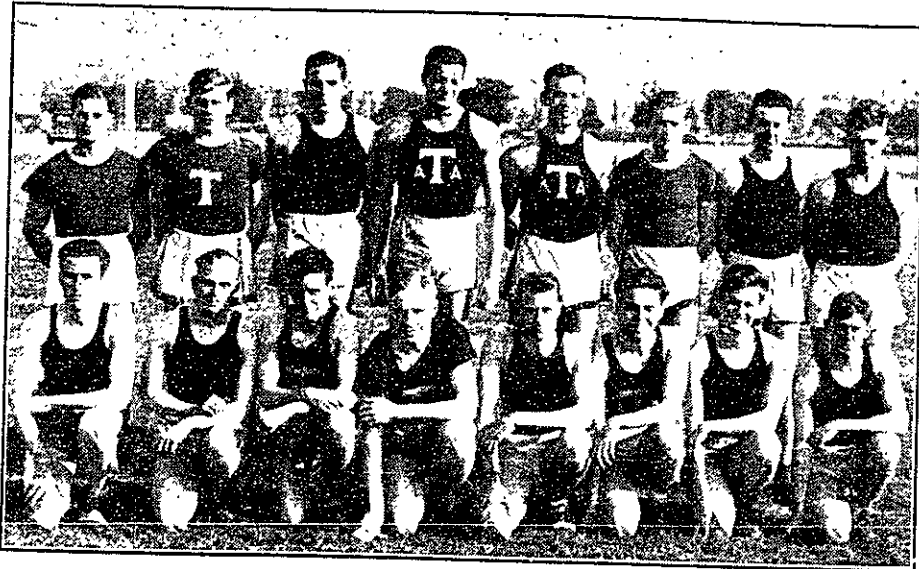
Jim Thomson's '37, tie for first in the high jump and Captain-elect Stan Johnson's '36, third in the broad jump, gave Tech its points. Thomson and Johnson both created new Institute records in their favorite events. Jim added one-half inch to his mark of 6 ft. 2½ in. made at Portland a week ago in the New England Intercollegiate championships. He started his record breaking jumps in 1934 as a freshman when he erased Coon's mark of 6 ft. 5-8 inches putting it up to 6 ft. 7-8 inches. The new record of 6 ft. 3 inches should stand for some time unless Jim again finds perfect conditions to go higher.

Stan Johnson, '36, has a record in the broad jump which excels anything that has ever happened at the Institute. His record in the event started as a freshman when he jumped 22 ft. ½ inch for a new record which still stands. As a Sophomore last spring at West Point, he created a new varsity record of 23 ft. 7¼ inches followed by a leap of 24 ft. 1½ inches at the I. C. 4-A meet at Philadelphia, giving him second place in this championship meet. At the stadium meet last Saturday he added ½ inch to his record so, now it stands at 24 ft. 2 inches a wonderful jump against the best men from coast to coast. Not only a jumper outdoors, his performance in the indoor championships has been just as great because at New York this winter at the I. C. 4-A's he scored second with a jump of 23 ft. 4¼ in. This also breaks his own indoor record of 23 ft. 4 inches made in 1934 at the College championship meet at the New York Garden. During this spring season, he has scored the greatest number of points as an individual with a total of 58. Against Bates and Brown he won both the high and low hurdles, as well as winning his favorite event. He was selected Captain of the varsity track team for the season of 1935-36 and should be the outstanding man on Tech's track team before he graduates in June of next year.

Captain Morton Jenkins finished his season by repeating his victory in the mile at Portland by winning the medal in the New England Intercollegiate championship meet to give him his fifth straight T, a record equal to Elmer Sanborn, '26, the last one to secure so many major awards at the Institute during his three years of varsity competition. Jenkins started track in the fall of 1932 by reporting for cross country, a sport that was new to him, for he never ran before. His sport was hockey, but he became interested during one of our interclass meets and from that time on he came fast, a two-time New England Intercollegiate champion and a real captain of a Tech track team.

(Continued on Page 7)
Track

Track Team Representing Tech at Portland, Me., and Inter-Collegiate Meet at Harvard



Left to right, front row: Talbert, '35, Nygaard, '37, Cooper, '37, Captain Jenkins, '35, Faatz, '37, Guerke, '37, McLellan, '37 and Pulsifer, '38. Back row: LeBlanc, '36, Johnson, '36, Ray, '36, Thomson, '37, Crout, '35, Donnan, '36, Stark, '35, and Brown, '36.

Basketball Team Loses Three Men By Commencement

Capt. John Demo, Fred O'Brien And Dick Smith Graduate Today

Demo Winner Of Varsity Medal

Henry McCarthy and his basketball team will miss three men when the basketball season rolls around next fall. Johnny Demo, captain during the past season, Fred O'Brien, and Dick Smith are the three mainstays whose absence will be greatly missed. During the past year, Demo playing guard, O'Brien at forward, and Smith at center teamed together with Bill Garth, next year's captain, to form the backbone of the entire squad.

Demo Wins Award

Demo, who comes from North Adams, Mass., made the yearling squad in his freshman year, and continued playing basketball throughout his four years here at the Institute, making his letter in his Junior and Senior years. Although seriously handicapped by his eyesight, his general spirit and personality together with his playing ability won for him the Varsity Club medal, awarded each year to the most valuable man on the team.

Fred O'Brien had never played basketball before he came to Tech, but under the coaching of Henry McCarthy, Obie developed rapid enough to earn a berth on the freshman team. In his Sophomore year, still playing forward, he quickly developed into

Wrestlers To Lose Mardorosian, Oshry

Both Men Have Wrestled For Tech Since Freshman Year

Two of the best wrestlers ever enrolled here as students will graduate today, thus terminating brilliant mat careers. Avedis Der Mardorosian and Harold M. Oshry are the two Senior grapplers who will be missed by wrestling coach Jay Ricks next fall. Mardorosian won the New England Intercollegiate Wrestling title in the 126 pound class, while Oshry was runner up in the 135 pound class.

Both men first came out for wrestling in their freshman year, and both won berths on the yearling team. Both continued wrestling in their Sophomore years, earning their positions against more experienced teammates. In his Junior year, Avedis was runner up in the 126 pound class of the New England Intercollegiate.

such a good shot that McCarthy used him on the varsity squad. He played that position for three years on the team.

McCarthy Has Many Recruits
The outlook for next year's team is rather good at this early point, since McCarthy has a wealth of material coming up from the freshman squad to supplement a crack group of five Sophomores who saw action on the varsity squad this past year. Bob Wepler, who is also soccer manager, Jack Simpson, Harold Prouty, Bob Gay, and Walter Wojtezak, also

Gymnasts Hard Hit By '35 Graduation

Van Ham, Flaitz, And Lewis, All Consistent Winners, Graduate Today

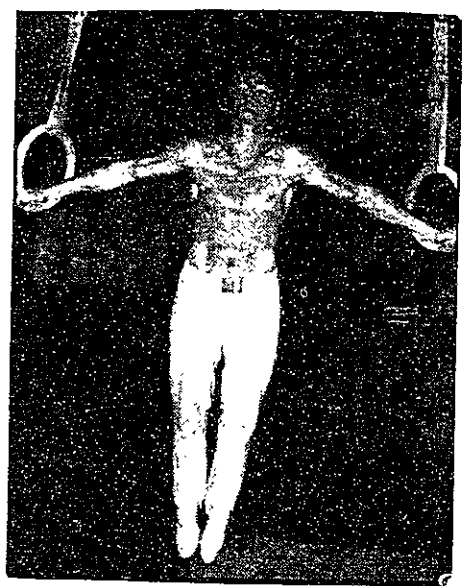
Three Technology gymnasts will graduate from the Institute today, thus dealing a severe blow to the team's chances for next year. Captain Ernie Van Ham, Jack Flaitz, and Dick Lewis, all three of whom have been the Beaver mainstays during the past season, terminate their careers at Technology today. Coach Herbie Forsell will have to go far to find replacements for these three men, each of whom was a star in his field.

Ernie Van Ham, whose specialty is the flying-rings has turned in a brilliant series of first place wins, while Jack Flaitz, Tech's clever tumbler has also acquitted himself well in his specialty. Dick Lewis on the parallel bars will also be sadly missed. During the past season, these three men have accounted for nearly all of Technology's points, and it was mainly through their work that Tech was able to place second in the New England Intercollegiate.

manager of track, are the five Sophomores who will see plenty of action on the floor next year. Bullwinkle, Captain Kangas, Wu, Nietsch, Hiares, and Gingserg are the freshmen who will be making bids for positions.

Captain Bill Garth, who was high scorer last year, will be leading the hoopsters this fall, holding down his regular position at forward. Dick Denton, '36, a guard, will be the only other veteran on the team, unless Fletcher Thornton, this past season's track manager, returns from his managerial duties to fill in the other forward position to team with Garth.

Captain Ernie Van Ham



Clever gymnast who graduates today, after brilliant career on flying rings

Athletic Awards

(Continued from Page 2)

- | Lacrosse "IT" | |
|-----------------|--------------------|
| J. H. Carr, Jr. | E. C. Wirtz |
| R. W. Forster | J. H. Fellours |
| F. D. Mathias | R. H. Leventhal |
| J. H. Colby | R. F. Morton |
| J. E. Bulkeley | S. D. Zemansky |
| G. F. Grumme | C. R. Gidley, Jr. |
| R. Halloran | |
| Tennis "tT" | |
| S. C. Rethorst | C. A. Lytle |
| Jack Silverman | T. A. Terry, Jr. |
| Golf "gT" | |
| R. F. Flood | E. F. Everett, Jr. |
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GENTLEMEN, TODAY OUR RESEARCH WILL TAKE US INTO THE STUDY OF CERTAIN MINUTE ORGANISMS—THE BUGS THAT WILL ENTERTAIN US ARE SCHIZOMYCETES

SOME CELLS ARE LARGER THAN OTHERS—SOME ARE SPHERICAL, SOME CURVED, AND SOME STRAIGHT—SOME FUN, EH?

YOU WILL NOTICE THAT THESE BACILLI DIVIDE AND MULTIPLY IN GREAT NUMBERS—ER, ER—I THINK THAT THIS WILL ABOUT WIND UP TODAY'S SESSION!

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I'VE MADE A STUDY OF PIPE TOBACCO. PRINCE ALBERT IS THE MILDST—MELLOWEST SMOKING TOBACCO—IT NEVER BITES THE TONGUE!

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Vol. LV JUNE 4, 1935 No. 30

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A FREE REIN

NRA DISCARDED

THE Supreme Court delivered a smashing blow to the administration in outlawing the NRA, and the immediate problem before Congress and the White House is in drafting new legislation to carry on. If the NRA has taught business anything during the past two years, it has been that one of the best remedies for depression is the maintenance of as high wages as possible.

Insofar as NRA legislation and code making did help in alleviating the undesirable features of competitive price cutting, industry should continue to follow the general principles embodied in the NRA. Those business men who objected strongly to the government's having such a strong hand in business affairs now have a free rein. It is up to business to demonstrate that it can continue the upward trend without the interference of centralized government control.

FACING THE WORLD

EXAMINATIONS COMING

THE class of 1935 faces the world. It has successfully bridged the four year period of "higher learning", and now it turns to a much harder test, a life in which examinations will not be scheduled but will appear at the most unexpected times, a life in which the individual can remedy his previous failures, but also can endanger his past successes.

Owen D. Young, American lawyer and financier, once delivered a commencement address in which he suggested that the graduating class subject itself to another examination whereby it could appraise itself fairly in the light of its accomplishments in college. The questions are worth quoting. They are penetrating questions, and not easy to answer. The student who can answer them without prejudice has gone far toward the Greek ideal summed up in those two potent words: Know thyself. Mr. Young's test questions were:

Have you enlarged your knowledge of obligations and increased your capacity to perform them?

Have you developed your intuitions and made more sensitive your emotions?

Have you discovered your mental aptitude?

Have you learned enough about the machinery of society and its history to enable you to apply your gifts effectively?

Have you acquired adequate skill in communication with others?

Whatever the aims of the college graduate today, his success in life will hinge largely on his ability to qualify himself to answer these questions.

An American writer ingeniously classified the aims of the average freshman in college into the following three groups: (1) The bread-and-butter purpose; (2) The super-kindergarten purpose; (3) The culture purpose. The first is self explanatory. The second is described by the writer as the purpose of making college a "glorified prep school" in which there are "older babies who have progressed from rattles to rah rah." The third is usually a nebulous quest after knowledge of the better things of life without any particular reference to their application.

It may appear too materialistic to some to go to college for the sake of getting a running

start for a job upon graduation and the possibility of thereby earning more money in the end. But despite the well-known platitude that money cannot buy the things most precious, we all recognize the need for cash at some time or other and realize how contentment can be curtailed by narrow means. And so those who brazenly assert that they came to college to enable them to earn more money have a clear-headed and justifiable purpose in mind.

And likewise college should provide amusements, even though some youths go to college only for that reason. A well-balanced life has a good measure of "fun". The graduate who has given to "activities" their rightful place in the collegiate scene without subordinating studies has acted wisely.

The much discussed cultural aspects of college generally take care of themselves. A student with any brains and iota of perspective cannot withstand four years of advanced work without getting a better knowledge of the vast complex of what the sociologist calls culture traits comprising the fields of literature, science, art, history and politics.

Each of the three purposes has its part in the general aim of the American college, and insofar as the graduate has planned and carried out a balanced and intelligent life at college, so will his potentialities be brought forth in life.

With The American College Editor

THE SOCIAL IDEAL

Since the retreat has closed and we have all rehearsed our spiritual forms of conduct, it may be well to look into what is perhaps the most finely drawn portrait of the social ideal—Newman's Gentleman.

"... it is almost a definition of a gentleman to say he is one who never inflicts pain.

"This description is both refined and, as far as it goes, accurate. He is mainly occupied in merely removing the obstacles which hinder the free and unembarrassed action of those about him; and he concurs with their movements rather than takes the initiative himself.

"His benefits may be considered as parallel to what are called comforts or conveniences in arrangements of a personal nature: like an easy chair or a good fire, which do their part in dispelling cold and fatigue, though nature provides both means and rest and animal heat without them.

"The true gentleman in like manner carefully avoids whatever may cause a jar or a jolt in the minds of those with whom he is cast—all clashing of opinion, or collision of feeling, all restraint, or suspicion, or gloom, or resentment; his great concern being to make everyone at their ease and at home.

"He has his eyes on all his company; he is tender toward the bashful, gentle toward the distant, and merciful toward the absurd; he can recollect to whom he is speaking; he guards against unseasonable allusions, or topics which may irritate; he is seldom prominent in conversation, and never wearisome.

"He makes light of favors while he does them, and seems to be receiving when he is conferring. He never speaks of himself except when compelled, never defends himself by a mere retort, he has no ears for slander or gossip, is scrupulous in imputing motives to those who interfere with him, and interprets everything for the best.

"He is never mean or little in his disputes, never takes unfair advantage, never mistakes personalities or sharp sayings for arguments, or insinuates evil which he dare not say out. From a long-sighted prudence, he observes the maxim of the ancient sage, that we should ever conduct ourselves toward our enemy as if he were one day to be our friend.

"He has too much good sense to be affronted at insults, he is too well employed to remember injuries, and too indolent to bear malice. He is patient, forbearing, and resigned, on philosophical principles; he submits to pain, because it is inevitable; to bereavement, because it is irreparable; and to death, because it is his destiny.

"If he engages in controversy of any kind, his disciplined intellect preserves him from the blundering discourtesy of better, perhaps, but less educated minds, who like blunt weapons, tear and hack instead of cutting clean, who mistake the point in argument, waste their strength on trifles, misconceive their adversary, and leave the question more involved than they find it.

"He may be right or wrong in his opinion, but he is too clear-headed to be unjust; he is as simple as he is forcible, and as brief as he is decisive. Nowhere shall we find greater candor, consideration, indulgence: he throws himself into the minds of his opponents, he accounts for their mistakes."

This is from the pen of one who not only knew the requirements of a gentleman but who also practiced them and found them to be well worthy of the concern he held for them. When we read this excerpt we are inspired, so to speak, and on seriously considering the sum total of its value we can conclude that here is something worth remembering.

—The Tower-Catholic University of America



Progress

Certain of the staff members with a propensity for wine and song are bemoaning the fact that a formerly tolerant establishment over in the neighborhood of the Metropolitan theatre has decided that the stag parties held there by the local young men were injurious to business. So when they showed up the other night all set for a boisterous evening, they were invited, nay asked, to hie themselves hence. So they began to walk.

Finally arriving at a popular Rathskeller, they established themselves comfortably at a table and scanned the menu. One sharp-eyed fellow noticed the information in small red letters that there was a minimum charge of \$1.50. So the whole eight got up and solemnly filed out.

Kidnapping

The boys who took the dorm man up to the front steps of a Wellesian dormitory, and left him there tied to a cot which they'd brought along, regret the fact that no flash bulbs were available. Two cameras on the scene, and no way to take a picture. Some of the boys got a real thrill, though, when they drove back five minutes later with lights out and rode slowly up the dead end road past the steps where the authorities were gathered. Those in the know are still chuckling at the quaint idea of one of the men that the boys would stop because he ran after the car and yelled "wait a minute." He did look funny, though, chasing the car over the grass. Unless the authorities take action, however, their stretch of grass will be bare. Because the Tech boys just can't stay away.

High Jinks

Members of this year's graduating class may be fortunate in being almost a post-depression group, but they evidently do not intend to believe anything they hear, nor even to listen to it. Possibly because the annual riots have been eliminated, the grads, still disturbed at the unsuccessful attempts to stage a riot in the last few weeks of school, "obeyed that impulse" at the Senior banquet, and caused the eminent Tubby to remark on being heckled down without a chance to begin a speech, "I wouldn't trust the daughter of any boss with you."

Memories

The rotund little sage also declared that he could not remember anything for which the class was noted. He very probably will not forget the class of '35 for a long long time, however.

Men or Moose?

A young man well known to readers of the Dorm bulletin board was noted attempting to seduce a stuffed moose at the Senior banquet. That is, it really was a stuffed moose-head, the animal we mean, not a round-about allusion to a guest speaker. Well, the fellow swung a tablecloth around his shoulders, and swaying up a chair to the moose, caressed the cheeks and frontal anatomy, and deposited several resounding osculatory tokens on the nose.

K. T. also observed the amatory advances, and in the few words he was allowed to speak remarked that he hoped the young man wouldn't contract anthrax. Whereupon someone added, "What about the moose?"

Modernists

The frosh playing tennis in his underwear caused a mild sensation. Several young ladies, very young, and the "ladies" is open to discussion, advised him to "go home and get dressed." But his comment is that he doesn't look any worse, and his shorts fit a good deal better than those of the sun (son) worshipping gals who display very unique lower extremities via the short and broad shorts on the Institute courts.

Incognito

And after the way this fellow Van De Graaf has worked to put M. I. T. on the map, Technique has to run the wrong cut line. Especially as no one recognizes Prof. V. D. G. without his high voltage apparatus. So instead of Robert Jennison Van De Graaf, the ingenious proof readers allowed the cut to run with the title J. V. D. G. Robert.

Reviews and Previews

METROPOLITAN

Shirley Temple, child-winner of the Academy Award, is in "Our Little Girl", adapted from the story "Heaven's Gate" the story of life of a happy little girl who is suddenly deprived of her protected and secure home life.

The stage offering, "Melody Lane", is a variety musical revue produced around Donald Novis, tenor singer of stage, screen and radio fame.

KEITH MEMORIAL

Katherine Hepburn in "Break of Hearts" with Charles Boyer, French idol, portrays a young composer who marries a famous maestro but leaves him when she believes that her love is no longer necessary to him. His plunge to the depths of despair, and his regeneration through her love, make up the body of the plot.

RKO BOSTON

With a beautiful girl, a packet of indiscreet love letters and a curious jade ring, "Chinatown Squad" has been concocted together with a generous measure of the "inside stuff" on San Francisco's famous Chinatown. Chinese and Americans engage in a battle of wits when a murder is committed in a chop suey restaurant. In the cast are Lyle Talbot and Valerie Hobson.

Wheeler and Woolsey are in "Nit-Wits".

LOEW'S STATE

"The Flame Within" with Ann Harding and Herbert Marshall, deals with the emotional reactions of a celebrated woman psychiatrist who finds herself facing the same dilemma in her own romantic affairs that she successfully untangled in the lives of many of her patients.

"Vagabond Lady" is a Hal Roach production with Robert Young and Evelyn Venable.

PARAMOUNT FENWAY

Mae West in "Goin' to Town" appears as the modern up-to-date wench rather than the belle of the nineties, but still trying to get her man.

"The Last Wilderness" shows you big game hunting in your own country. All the shooting is done with bow and arrow by Howard Hill, a national champion in the art.

LOEW'S ORPHEUM

We've already told you about "Les Miserables". You shouldn't miss it. Frederick March as Jean Valjean and Charles Laughton as Javert bring Hugo's novel vividly to life.

Another Loew's stage show will be presented.

MODERN

"Cardinal Richlieu", the story of that amazing prelate behind the throne of Louis XIII of France, has George Arliss in the title role in another of his now famous historical impersonations.

"Circumstantial Evidence" a new film based on the theme of the Hauptmann trial, but with no similarity in plot, has Chick Chandler and Shirley Grey in the leading roles.

UPTOWN

"Star of Midnight", co-starring William Powell and Ginger Rogers and "Cardinal Richlieu" are the feature attractions.

Found. Personal copy of Cushman's Introduction to Conrad. See Mrs. Hicks, Walker Memorial Library.

VACATION CRUISING

on a 63-ft. auxiliary schooner, for two and three week periods. Also day, evening and week-end sails. A swordfishing outfit is carried. This is your opportunity to spend your vacation at sea at very little expense. Capt. Grant, P. O. Box 48, Cambridge, Mass.

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INSURANCE
 OF
 ALL KINDS

Bowman
(Continued from Page 1)

through his own efforts was one of the greatest made by man, Dr. Bowman showed that there are two main obstacles to this progress: "the universal reluctance to engage in thinking, and the instinctive opposition to a new idea based not on experience but on experiment."

"In the effort to achieve reasoned relationships there are two great blocks of humanity that still call each other across a deep gulf—the specialists who discover truth, and the masses that accept or reject that the specialist discovers." "If citizenship claims your loyalty and if without it your science dies, it is vital that you ask what are the channels and what the forces that effectively put your gifts and your training at the service of the state."

Defending the Wall

Comparing modern civilization to that of the ancients wherein each man had a definite responsibility in helping with the construction of the walls and towers to protect the city against invaders, he said that science, the frustration of nature, the discovery and application of new instruments of power, the generalization for the many of the experience and experiments of the few, the reaching back into history to analyze the causes of success or failure, the recommendation of national measures and the

**Graduated With
Technology Diploma**



Harmony Hope Holley, 14 months old daughter with her daddy, John Stuart Holley, XIV, who received B. S. degree today.

wide promulgation of findings, are among the "bricks in the wall of defense."

Dr. Bowman then illustrated his point concretely with a description of a study made by the American Geographical Society to determine the advisability of further cultivation

of pioneer lands in Canada. Here, he remarked, there was a fine spirit of co-operation between the investigators and the legislators.

Government Impersonal

Recognizing that the townsmen of the Middle Ages could do something about a "tangible, material wall", but that we are "compelled to talk of abstractions and ideals and duties today", the Johns Hopkins new president maintained "Citizenship is personal and government is now impersonal, distant, a thing of complex forces mixed too often with vanity and greed."

"Add to that the blindness of the many—educated and uneducated—toward the idealisms of the few, and you have a combination that challenges the mind of every man who still looks on America as the bright hope of the world. For men to take and not to give, to enjoy merely and not to help create, is at length to see our plane of living descend and idealism to starve and die."

"Does patriotism mean no more than a dull speech on the Fourth of July by an office-holder who wants to hang on to his office? Civilization has become not an eager anticipation or an initiation into citizenship, but an abstraction that is hard to relate to enjoyable realities. You cannot affect Washington, D. C. by quoting the classics or the Bible. Listening to an essay on citizenship won't help much."

"Built out into this vast scheme we

**Stockmayer, Loomis Win
Three Places in Senior Poll**

Results of the Senior Class ballot, as announced at Class Day yesterday by Hal L. Bemis are as follows: most likely to succeed—Walter H. Stockmayer; most respected—Walter H. Stockmayer; most conscientious—John B. Ballard; most popular—Walter H. Stockmayer; done most for M. I. T.—John B. Ballard; done M. I. T. most—Wesley H. Loomis; laziest person in class—Louis F. Birchall; class sponger—Wesley H. Loomis; class crepe hanger—Zay B. Curtis; handsomest—Wesley H. Loomis; noisiest—John E. Orchard; class politician—Henry F. King; class bluffer—Tom K. Graham; class big shot—Damon E. Francisco; favorite professor—Karl D. Fernstrom; favorite courses—15.42 and G 75; favorite actresses—Shirley Temple and Ginger Rogers; favorite girl's name—Emily. The class voted that the members preferred a Tau Beta Pi Key rather than a Straight "T".

**Magoun Will Speak
At Harvard Seminar**

Professor Alexander Magoun, teacher of Humanities at the Institute, will be one of the lecturers at the educational seminar of the Harvard summer school on July 24 and 25.

On July 24, Professor Magoun will lecture on "The Scientific Method in Modern Life" and July 25 on "The Social Significance of Science". Following the lectures, the students will participate in discussions of the subjects.

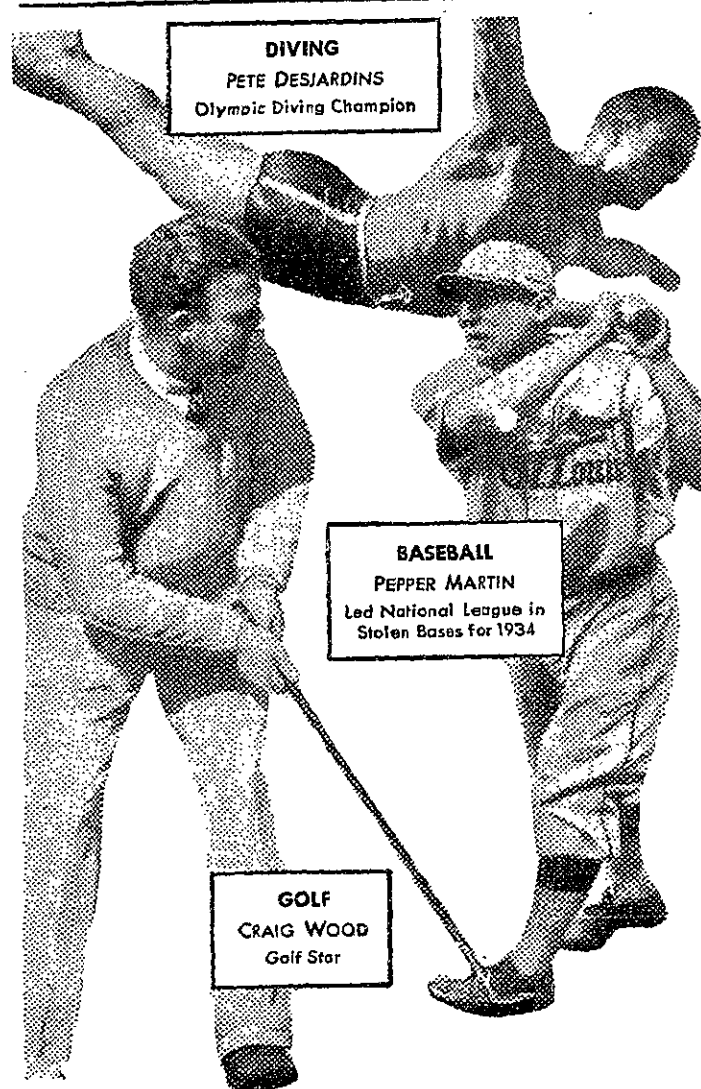
Other specialists who will lead discussions are Stuart Chase, '10, and Frances W. Hersey, wife of Mayo D. Hersey, '09. The lectures are open to any student registered in the Harvard Summer School.

**The First Church of
Christ, Scientist**

Falmouth, Norway and St. Paul Sts.
Boston, Massachusetts

Sunday Services 10:45 a. m. and 7:30 p. m.; Sunday School 10:45 a. m.; Wednesday evening meetings at 7:30, which include testimonies of Christian Science healing.

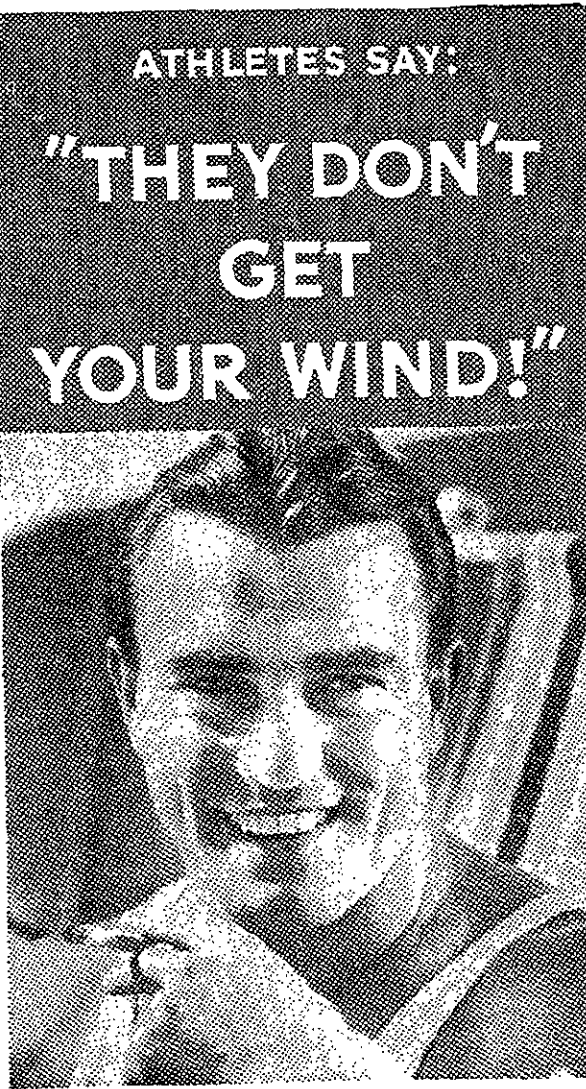
Reading Rooms—Free to the Public, 333 Washington St., opp. Milk St., entrance also at 24 Province St., Sturley Office Bldg., Park Sq., 60 Norway St., cor. Mass. Ave. Authorized and approved literature on Christian Science may be read, borrowed or purchased.



DIVING
PETE DESJARDINS
Olympic Diving Champion

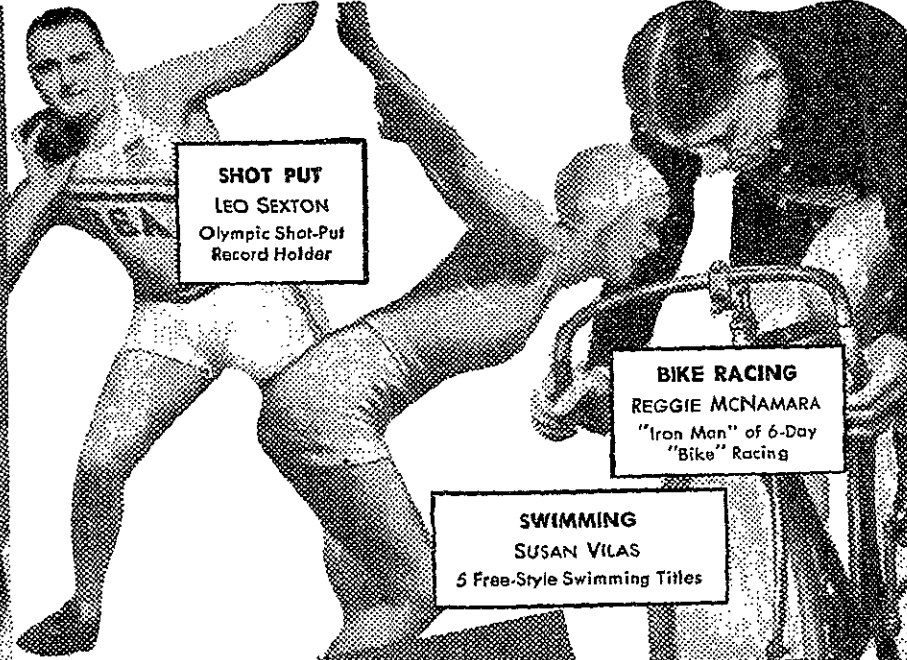
BASEBALL
PEPPER MARTIN
Led National League in Stolen Bases for 1934

GOLF
CRAIG WOOD
Golf Star



ATHLETES SAY:

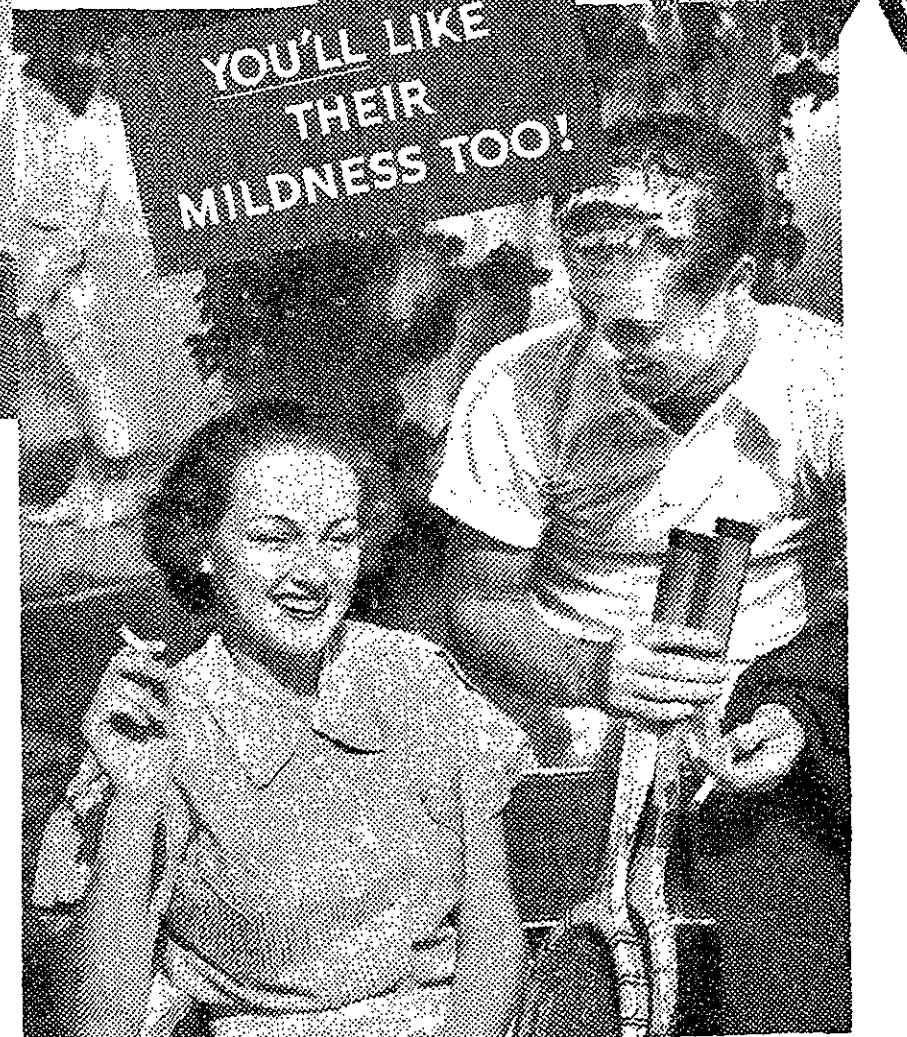
"THEY DON'T
GET
YOUR WIND!"



SHOT PUT
LEO SEXTON
Olympic Shot-Put
Record Holder

BIKE RACING
REGGIE MCNAMARA
"Iron Man" of 6-Day
"Bike" Racing

SWIMMING
SUSAN VILAS
5 Free-Style Swimming Titles



YOU'LL LIKE
THEIR
MILDNESS TOO!

PETE DESJARDINS, winner of many U. S. and Olympic diving titles, says: "Divers and swimmers like a mild cigarette. That's why I prefer Camels—they never get my wind or jangle my nerves."

*Read these reports from star athletes
approving Camels*

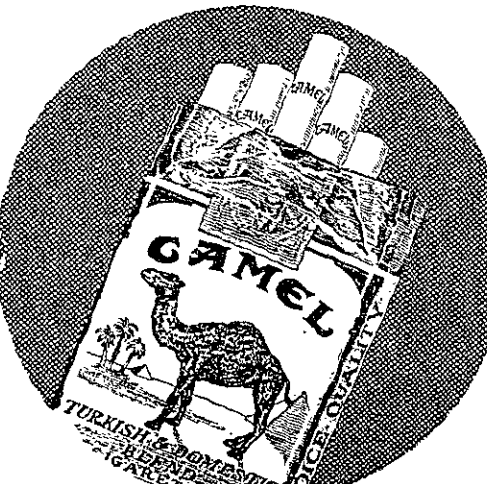
When athletes agree upon one cigarette, its mildness is placed beyond question. For they must be sure about mildness! Pete Desjardins says: "Camels are so mild that I can smoke as many as I like and still keep my wind in perfect condition." Pepper Martin, fleet-footed St. Louis Cardinal, says: "Camels are mild—don't cut down on my speed or wind." And Pepper is backed by Leo Sexton, Olympic shot-put record holder; Craig Wood, the golf star; Reggie McNamara,

the "bike" racer; and Susan Vilas, of swimming fame—to name only a few of the outstanding athletes who say they smoke Camels all they please, without disturbing their wind or nerves.

More enjoyment for you in this mild cigarette! You'll find you can smoke Camels all you want! Athletes say that Camel's costlier tobaccos don't tire their taste—don't upset their nerves or get their "wind."

IT'S JUST AS IMPORTANT TO YOU to keep "in condition" as it is to any champion. Smoke Camels all you wish. Athletes say Camels never upset the nerves, never get the wind.

**SO MILD! YOU CAN SMOKE
ALL YOU WANT!**
Camels



**COSTLIER
TOBACCOS!**

Camels are made from finer,
MORE EXPENSIVE TOBACCOS
—Turkish and Domestic—
than any other popular brand.

Nine Men Chosen For Junior Honors Group

High Ranking Students Freed From Routine Work

Selection of nine members of the Sophomore class as members of the honors group of the department of electrical engineering was announced today.

Those students who were chosen on the basis of high scholastic standing and responsibility to work under the honors group plan are: Lewis P. Reitz, Jr., Buckhannon, W. Va.; Leo Rosen, Croton-on-Hudson, N. Y.; Joseph F. Wiggin, Scarsdale, N. Y.; Duane O. Wood, Denver, Colo.; Allen V. Hazeltine, Westfield, N. J.; Arthur V. Hughes, Boston; Philip H. Peters, Chicago, Ill.; Alfred C. Schroeder, Westfield, N. J.; and David F. Tuttle, Jr., Rye, N. Y.

Members of the honors group in electrical engineering at Technology are given considerable freedom from class attendance and routine assignments. Each honors student carries on his work largely on his own initiative, with the advice and guidance of members of the faculty. The arrangement is designed to foster originality, intellectual courage, and self-reliance.

Seven Women Given Institute Degrees

One Receives A Degree In Doctor Of Philosophy; Four Receive B. S.

Miss Dorothy Thompson of Newton was awarded the degree of doctor of philosophy. She is a graduate of Mount Holyoke College, where she got her bachelor of arts degree in 1931 and the master's degree in 1932.

Miss Eva A. Haurwitz, of Leipzig, Germany, received the degree of master of science in physics. Miss Alice H. Miller of Waco, Texas, a graduate of the University of Texas with the degree of bachelor of science in 1928, was awarded the certificate in public health. Mrs. Katharine S. Lemon of Westmount, Quebec, who has been studying biology and public health, was awarded the degree of bachelor of science. Mrs. Catherine B. Armstrong of Medford, Mass., who has been in the course in general science, got the degree of bachelor of science, and Miss Elizabeth M. Haskins of Worcester, Mass., was awarded the degree of bachelor of science. Her field was mathematics. Miss Shea A. LaBonte, Lawrence, Mass., received the degree of bachelor of science.

Yale Scientific Cup Is Awarded to T. E. N. For The Second Time

Reviewer Names Five Articles That Are Most Worthy Of Mention

For the second time our esteemed contemporary the "Tech Engineering News" has been awarded the Yale Cup for outstanding undergraduate publications in the scientific field. The "Armour Engineer" and the "Purdue Engineer" were tied for second place, with the "New York University Quadrangle" honorably mentioned.

The awards were made on a basis of scientific merit of articles; proportion of advertising to reading matter; the extent and distribution of circulation; cover designs and pictorial supplement; and general make-up.

Judges of the contest were Charles H. Warren, Dean of the Sheffield Scientific School of Yale University; Carl P. Rollins, of the Yale University Press; Sidney Oviatt, of the Yale Alumni Weekly; and Alan M. Bate-man, Professor of Geology at Yale University.

Well Selected Pictures

Looking over the issues for the past year, we do not wonder that the prize went to "T. E. N." The harmonious combination of carefully selected and placed pictures and articles written by qualified persons speaks well for the management.

No Notice of Rhetoric

Perhaps, however, it is well that no mention is made in the award of the literary merit of the articles included. Engineers as a whole seem to take a sadistic pride in being unable to put together an essay of any sort in the English language that takes notice of such a thing as rhetoric.

Our "well qualified experts" are prone to writings that would shame a primary grades student. But this is blame which should in no way attach itself to "T. E. N." except insofar as they have jurisdiction in editing all the material that comes to them.

There is no little difficulty in telling a "well qualified expert" that he is ungrammatical.

The most thought provoking article we recall appeared in the last issue, "Rocketry" by G. Edward Pendray, president of the American Rocket Society. Mr. Pendray reviewed the present scientific standing of rocketry, and the lengths to which it must go before it becomes a great American industry.

For a highly entertaining historical article we recommend "Early Chinese Alchemists" by Professor Tenney L. Davis in the March issue. Professor Davis turned out to be as entertaining in print as he is reported to be otherwise.

Things We Never Knew

Three articles vie for first place as being the one which told us most about things we never knew before but wanted to. "Technology Graduates as Business Administrators" by Professor Erwin H. Schell corrected a very erroneous impression that Course XV men who take jobs as filling station operators sometimes get as far as driving a car. This was in the March issue.

The second article, which also appeared in the March issue, was "Protecting Your Eyes" by Professor Parry H. Moon. Professor Moon gave instructions on proper illumination for studying, among other things, which appealed from a practical standpoint to many of our friends who actually do study.

High Speed Engines

The third article, "High Speed Engines" by Randolph L. Strickland, '35, appeared in the June issue. This also served to correct a mistaken impression that aeroplane engines were necessarily high speed.

On the whole it may be said that the above five articles are really what determined our reading the "T. E. N." and not what cups the "Yale Scientific Magazine" has seen fit to award.

R. D. M., Jr.

FOR SALE—1925 Overland Touring Car; driven 6343 miles, good all-round condition. Parkway 2517-M.

Lowell School Holds Graduating Exercises

Commencement Address Made By Ralph E. Flanders

The thirty-first graduation exercises of the Lowell Institute School were held in the main lecture hall at the Institute on last Friday, May 24. The graduating class of 278 was one of the largest in the school's history.

Professor Charles F. Park, director of the school, opened the program with a brief address and introduced Dr. Karl T. Compton, president of Technology, who spoke to the graduates. The Commencement address was delivered by Ralph E. Flanders, president of the Jones and Lamson Machine Company.

Dr. A. Lawrence Lowell, president-emeritus of Harvard University and sole trustee of the Lowell Institute, made the presentation of certificates to the graduating class.

Baccalaureate

(Continued from Page 1)

Adapting another point from the Bible, he quoted "It is more fortunate to give than to receive," and said that "the person who realizes this has prepared the way for a happy life."

He spoke of the fact that when we get into the "university of life" we get a new set of values. "We see the world through a looking glass, and sometimes we see things upside-down. . . We must always be alert in apprehending the truths by which we live." It is valuable to remember that our lives are limited by our limited estimate of truth, he also pointed out. "And what mankind needs is a more disinterestedness in the search for truth. The sources of truth are in God, for you to make use of. The truths you know and love, seek to evidence in order to be an example," he advised.

Those who find fault with the churches for not fulfilling their mission should get behind the churches, he concluded.

New Plan of Alumni Gathering Marked First Annual Reunion Day Yesterday

Marking the first annual alumni Reunion Day, the new plan of alumni gatherings at the Institute was inaugurated yesterday and retained the attractive features of the individual class reunions which recalled its classmates from throughout the world in all walks of life.

The diverse activities of the alumni are many. There are ministers, educators, physicians, public health specialists, legislators, astronomers, lawyers, jazz-band leaders, New Dealers, pianists, painters, actors, and stage designers as well as men of industry.

Alumni Hold Executive Positions

Of striking significance is the number of Technology alumni who hold managerial and executive positions of great responsibility. Several statistical samplings have been made, all of which indicate that approximately three-fourths of the graduates more than ten years out hold administrative positions and that the trend is from purely technical positions to executive posts.

In a survey made by the Institute it has been found that in 1933, three of the four great Founder Engineering Societies were headed by Institute graduates and that in the preceding year the presidencies of 12 national scientific and engineering societies were filled by Technology alumni. The Institute leads all other colleges in the number of men listed in "Who's Who in Engineering."

Nine Outstanding Chemical Engineers

Recently the Executive Council of the American Institute of Chemical Engineers prepared a list of 41 outstanding chemical engineers in this country. Of the 41, nine were Institute graduates. One-sixth of the total membership of the Institute of Aeronautical Sciences is made up of Technology alumni, and three of its five officers are Institute graduates.

In an extensive list of important posts in large business enterprises held by the alumni, it has been found that Technology men hold the presidencies of: General Electric Co., General Motors Corp., duPont Co., Bell Telephone Laboratories, Inc., Douglas Aircraft Co., and many other companies and corporations which if listed, would extend to encyclopedic lengths. Among the important vice-presidencies may be mentioned the U. S. Steel, Sun Oil Co., Chrysler Co., New Haven R. R., duPont Co., Union Carbide and Carbon Corp., and others.

It has been noted that many Technology men are found within a single great enterprise. Fifteen members of the duPont family have attended the Institute and Willis F. Harrington, Vice-President of the duPont de Nemours Company, is a member of the Class of '05. We have both the chairman of the Board and the President of General Motors. Mr. Jewett, '03, and Mr. Charlesworth, '05, are President and Vice-President, respectively, of the Bell Telephone Laboratories, and both the President and

Vice-President of the Sun Oil Company are Technology men. Not only is the General Electric Company presided over by Gerard Swope, '95, but its great research laboratories were founded by Dr. Whitney, '90, who was succeeded only a short time ago by Dr. Coolidge, '96, and the executive engineer is now Mr. Hawkins, '99. Then there is Stone and Webster, both members of the Class of '88. The President and five important executives of the Campbell Soup Company are fellow alumni.

Many Distinguished Architects

A note must be made on the School of Architecture's large and distinguished list of graduates. Since 1900 approximately one-third of the Presidents of the American Institute of Architects have been Technology men and at the present time nearly a dozen art or architectural schools or departments are headed by M. I. T. Alumni.

Among the students in the early history of the school were: Louis Sullivan, a seminal figure in the architectural profession; Daniel Chester French, sculptor of the "Minute Man" and other distinguished pieces; Edwin H. Blashfield, noted mural painter; and G. B. Ford, who contributed greatly to the progress of city planning in America.

The world-famous Chicago Tribune competition was won by two Technology men; another shared the commission to supervise the entire building of Canberra, capital city of Australia. A firm headed by a Technology architect designed the Supreme Court Building in Washington; one of the graduates is supervising architect of the Treasury Department; and at least ten former students of the School executed designs for A Century of Progress Exposition. A notably large group of women architects are numbered among the School's successful graduates, and at least three of the half-dozen leading American etchers are Technology alumni.

Where Alumni Finds Work

This would not be complete without knowing where the alumni finds its work. In a survey made recently by the Institute, it has been found that over 24,000 of its graduates are geographically distributed as follows:

New England	41.6%
Middle Atlantic	23.6%
South Atlantic	7.0%
East North Central	8.9%
East South Central	1.3%
West North Central	2.3%
West South Central	2.0%
Mountain	1.3%
Pacific	4.9%
Canal Zone	0.2%
Cuba	0.1%
Porto Rico	0.1%
Phillipines	0.3%
Hawaii	0.3%
Alaska	0.1%
Canada	1.1%
Mexico	0.6%
Foreign	3.8%

THE TECHNOLOGY BRANCH

"COOP"

Swimming

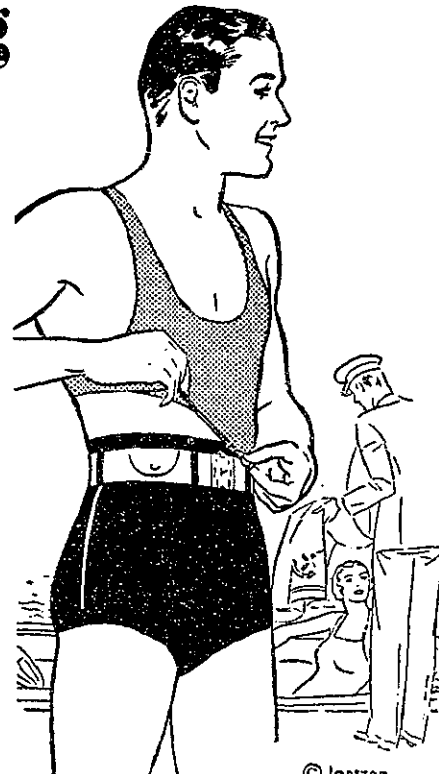
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Sigma Xi Prizes Given Three Seniors Today

Prizes offered by the M. I. T. chapter of Sigma Xi, the national honorary scientific society, for the best theses submitted by candidates for the bachelor of science degree, were awarded at Commencement today to Charles S. Sutton, of Wilmington, Del., first prize; Frederick R. Haigh of Lawrence, Mass., second; and John M. Kohr of Lancaster, Pa., third. Honorable mention was given to Joseph T. Cook of Washington, D. C., Albert deRoode, Jr., of Cambridge, Mass., and Ernst A. Nordberg of Long Island City, N. Y.

Compton

(Continued from Page 1)

never so exciting a field for discovery as at present."

The closing paragraph of the President's speech was both a spur to the more reticent members of the graduating group and a philosophical check for the less restrained—"So I bid you God's speed on your way, with confidence in your ability and envy of your opportunity, and with a hope that you will not be discouraged if the world does not immediately acclaim you as the group it has long been waiting for to run its affairs. It needs you, but it may not know it, and so you must prove it. Good luck to you!"

Dr. K. Compton Announces Advances In High Voltage Static Generators

Important advances in the development of electrostatic generators and the application of high voltage direct current electricity at the Institute were announced by Dr. Karl T. Compton, president of the Institute, at a meeting of the board of directors of the Research Corporation in New York.

The giant electrostatic generator built at Technology's research station on the estate of Colonel E. H. R. Green at Round Hill, Mass. by Dr. Robert J. Van de Graaff and his associates, Dr. Lester and Dr. Chester Van Atta, has been equipped with accurate voltage and current controls as well as vibration eliminators. It is now ready for the big vacuum discharge tube, in which experiments in atomic disintegration are expected to begin this year. The generator now develops approximately 7,000,000 volts, one of the limitations on higher voltage being flash-over to the roof of the airship dock in which it stands. This limitation may be reduced by corona shielding of the girders. The present voltage is many times greater than any other source of steady direct current, and is entirely adequate for the contemplated experiments on nuclear bombardment.

During the past year the Round Hill research staff has been engaged principally on the design and construction of the huge vacuum discharge tube now being prepared for operation by the generator. Much of the progress of the past year has been made possible by grants from the Research Corporation, Dr. Compton stated.

Handles Large Currents

The design of the vacuum discharge tube to handle large currents at several million volts is a scientific and engineering problem comparable to the design of the generator. The tube will consist of five identical units, joined end to end and sealed to metal caps at the two extremities. One end will contain the source of electrified particles, and the other the target to be bombarded by them. These end pieces and one unit of the tube have been constructed and are now undergoing tests which are proceeding satisfactorily.

The tube itself is a hollow textolite cylinder one foot in diameter, connected for very rapid pumping out of air and vapors. It is provided internally with a series of specially designed metal shields which will hold the beam of electrified particles in focus and distribute the voltage along the tube in the most advantageous manner. This voltage distribution is maintained by electric leakage through specially designed resistors running down the inside of the tube connecting the metal shields in series. Many

Track

(Continued from Page 3)

some real victories, defeating Bates, 89 2-3—45 1-2; Brown, 84 1-2—50 1-2, scoring second in the Greater Boston Intercollegiate beating B. C. and Northeastern (New England Champions). At Portland, Maine, Tech scored 13 points in the New England and at the Stadium Saturday, placed 10th scoring ahead of Pittsburg, Bowdoin, Dartmouth, Holy Cross, Northeastern, and Boston College. Thirty-two teams competed in the championship event. Cornell, Harvard, Michigan State, Stanford scored eleven points, Yale and Penn scored eight points. Tech should be proud of the season's result, the best since 1926 when we had Steinbrenner and Leness as the stars. By graduation Jenkins, Stark, Bates, Lovering, Crout, Jarrell, and Greenlaw, Tech will lose these point scorers. From the freshman class the varsity team will be helped by some real good athletes such as Cude, Brown, Lindsay, Des Jardine, Craig, Campbell, Downing, and Eddy. In the varsity competition this year sophomores gained real experience and should help to fill the gaps left by the graduates. In the sprints, Nygaard improved a great deal, McLellan in the 440, Copper in the 880, and Guerke showed real class in the 2 mile. Hermann, T. Brown, LeBlanc, Kinraide should be helpful in the field events and the boys are looking forward to the 1935-36 season trying to keep the Institute track team in the winning column.

Efficiency Standards Unnecessary To Be Raised Says Freeman

Few Reforms Bringing Great Consumer Benefit, Declared At Middlesex Council

"There are few reforms that would bring greater benefit to consumers than the raising of standards of efficiency in public employment," said Professor Ralph E. Freeman, head of the Institute's department of Economics and Social Science, speaking at a conference of the Middlesex Consumer's Council held at Technology last week.

Professor Freeman's talk discussed the possibility of increasing the satisfaction the consumer derives from the money he does not spend, the one-fifth of the national income transferred to the government as taxes. This can be done, he said, by increasing the efficiency with which the money is spent.

More Open Doors for Public Service

"To reduce the cost of government and to give the taxpayers the benefit of more effective spending," said Professor Freeman, "we must open wider the doors of the public service to men and women of character and capacity."

"This involves three improvements in our public personnel policy: (1) action should be taken to strengthen the employment agencies of the government and to eliminate nepotism, the spoils system, and the use of the public payroll for charity; (2) the work should be made more attractive by providing security of tenure, adequate remuneration and a merit system of advancement; (3) educational institutions should rearrange their courses to prepare a larger number of their students for entrance to government service."

Professor Freeman remarked that in the United States "we are beginning to wake up to our deficiencies" in regard to education of government employees. He cited Technology's special six-weeks summer course in public service administration, open to the general public. "This is not a technical training course," he said. "It is merely an attempt to stir up interest in a vital subject and to provide an orientation in the field of public service for those who are looking forward to applying their training in government service."

Compton Address

(Continued from Page 1)

"Thus far," he said, "the maximum loan to any student in any one year has been the amount of his tuition less any scholarship grant he received. We are proposing henceforth to make possible loans up to the full amount of tuition irrespective of the extent to which the student may simultaneously be assisted by scholarships granted in recognition of scholarly distinction."

More Graduates Placed

"Two years ago, only 35 per cent of the class had been placed at graduation. Last year the situation was markedly better, with a placement record of about 70 per cent of those getting degrees."

"The up-to-date figures for the class which will be graduated tomorrow indicate that approximately 70 per cent have already accepted positions or are planning to carry on graduate studies. One of the most encouraging features of the situation this year is that most of the men have secured positions of the type they desired in the fields for which they were trained."

Graduate Workers in Demand

"Those who receive the advanced degrees of master of science, doctor of science and doctor of philosophy have been in strong demand. We find

Class Day Oration Delivered by Duff

Hal Bemis Makes Presentation Of Gifts At Exercises In Walker

John Duff, III, former General Manager of Voo Doo, delivered the Beaver Oration at the Class Day exercises yesterday in Walker Memorial, but stepped out of his lecture long enough to give a silver-plated chisel to Hal Bemis, who, presenting the class gifts was unable to give himself something.

"Presentation of the class ring is symbolic of passing the buck," declared John B. Ballard, '35, chairman of the Senior Week Committee, in his welcome to Class Day.

Charles E. Smith, '00, President of the Alumni Association, presented the class banner to Walter H. Stockmayer, President of the Class of 1935. Stockmayer in turn presented the class ring to John C. Austin, President of the Class of 1936.

that 83 per cent of those receiving advanced degrees and 60 per cent of those receiving bachelor's degrees tomorrow comprise the total which I have just given."

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Alumni Reunion

(Continued from Page 1)

the past 50 years, the department gave a luncheon for Professor Dugald C. Jackson, who this year retires as head of the department.

Professor Jackson presided at the semi-centennial symposium, and authorities in the field of electrical engineering, including Dr. F. B. Jewett, president of the Bell Telephone Laboratories, Dr. A. A. Potter, dean of engineering of Purdue University, and Vice-President Vannevar Bush of Technology, led the various discussions.

Prof. Jackson Gives Farewell Speech

The speakers at the testimonial luncheon for Professor Jackson were Dr. Karl T. Compton, president of M. I. T.; Charles A. Stone, chairman of the board of Stone and Webster, Inc.; Gerard Swope, president of the General Electric Company; Professor W. S. Rodman, dean of engineering of the University of Virginia; Edward L. Moreland, newly appointed head of Technology's department of electrical engineering; Herbert G. Pratt, president of the Samson Cordage Works, and Professor G. C. Dahl of the department of electrical engineering. During the day the various laboratories of electrical engineering were open for inspection.

Other departments which held important symposia with laboratory exhibitions and demonstrations of the latest research and educational methods are those of architecture, business and engineering administration, economics and social science, chemical engineering, chemistry, civil and sanitary engineering, geology, mathematics, mechanical engineering, mining and metallurgy, and physics. Each department had symposia of special interest to groups in the various fields it covers.

Alumni Participates in Symposia

Following registration at the Institute on the morning of June 3, the alumni took part in the various symposia, which was followed by several luncheons. Dr. Karl T. Compton gave a luncheon for the honorary alumni secretaries and the officers of the alumni clubs from all parts of the country. The afternoon was devoted to departmental receptions and visits to the various buildings and laboratories.

The great reunion dinner was held in Symphony Hall on the evening of Alumni Day. Charles E. Smith, president of the alumni association, presided, and there were addresses by Dr. Compton and Professor Robert E. Rogers. The program included a concert by the famous Symphony Pops Orchestra. Among the guests at the dinner were Dr. Isaiah Bowman, president-elect of Johns Hopkins University, who will deliver the commencement address today.

Various Classes Hold Reunions

Various Technology classes, holding their reunions, will take part in the general reunion program. The class of 1895 had its fortieth reunion at Osterville on Saturday and Sunday; the thirty-fifth reunion of the class of 1900 was held at the same place from Friday until Sunday, while the class of 1905 had its thirtieth reunion at Old Lyme, Conn. on Saturday and Sunday. The twenty-fifth reunion of the class of 1910 was started in Boston on Friday and spent Sunday at Osterville.

The class of 1915 held its twentieth reunion at Saybrook, Conn. from Friday until Sunday, while nearby at Norwich, Conn. the class of 1920 held its fifteenth. The class of 1925 chose Marblehead, Mass. for its tenth reunion, and the class of 1930 went to Winchendon, Mass. for its fifth reunion. The class of 1885 will hold its reunion on June 20, and the class of 1890 is making plans for a reunion the date of which has not yet been decided.

Many other classes which have no reunion scheduled are planning luncheons, picnics and special dinners before alumni day.

Classes Came in Groups

In many instances, members of Technology alumni clubs arranged to come to the reunion as groups. The Technology Club of New York, as well as the Technology Club of Northern New Jersey, brought large groups by steamship. Other representative groups came under the banners of the Cincinnati Club, the M. I. T. Association of Cleveland, the Detroit Technology Association, the Hartford and New Haven Clubs, and the M. I. T.

Stratton Prize

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a member of the M. I. T. Physical Society, for his paper entitled "Modern Atomic Transmutation."

Willcox, a resident of Hasbrook Heights, New Jersey, told in his paper how cosmic rays were detected by the discharge of an electroscope, the Gieger counter, and the Wilson cloud chamber. He presented Millikan's theory that cosmic rays result from the released energy when atoms are formed in space. He also showed that the rays are mostly like gamma rays with about two per cent like electrons. Willcox is a pledge to Tau Beta Pi and at present is studying in the co-operative course in electrical engineering at Schenectady.

Abramowitz, who comes from Lakewood, New Jersey, told of the effects of radium poisoning in decomposing the bones and of the cure by removing calcium from the system. Since radium belongs to the same group as calcium, it also is removed. Abramowitz was president of the American Chemical Society during the past year.

Dobrin, winner of the third prize, is a resident of Pittsburgh. He told of the various methods of transmuting atomic nuclei by bombarding them with high-speed alpha particles.

During the present year approximately forty undergraduates have participated in the competition, the finals of which were presented yesterday morning in Eastman Lecture Hall. Besides the winners, those who competed yesterday were Phoenix N. Dangel, '35, "New Tools in Biology"; Malcolm A. Porter, '35, "The Theory of Flotation"; and Richard D. Purcell, '35, "Air Capacity and Output in Internal Combustion Engines of High Speed."

Commencement

(Continued from Page 1)

tificates in public health. A number of students in certain five-year courses were awarded both graduate and undergraduate degrees. Commissions in the Reserve Officers Training Corps were awarded to 127 students. Among those receiving degrees today were ten naval constructors, officers of the United States Navy who come to the Institute from the Naval Academy for their advanced training in naval construction.

A capacity audience of relatives and friends saw the presentation of degrees as the long line of candidates moved slowly down the aisle and across the platform where each man's name was announced as he received his diploma from President Compton and his aides. In the far-reaching field of black gowns, broken only by the white uniforms of the naval constructors, color began to appear as the graduates with advanced degrees returned to their places wearing the newly bestowed hoods. Where only black had shown before, the blue and the yellow hoods of the doctors of philosophy and science brought contrast, and the effect was heightened by the bright red, yellow and gray of the masters' hoods.

Chief Marshal Macomber Leads

The academic procession of the guests of honor, the corporation, members of the class of 1885, the fifty-year class, officers of the class of 1910, and the faculty was led by Chief Marshal Alexander Macomber, long prominent in Technology graduations. Following the chief marshal came President Karl T. Compton with Governor James M. Curley. Dr. Isaiah Bowman, president-elect of the Johns Hopkins University, the commencement speaker, followed with Dr. Vannevar Bush, vice-president of the Institute, as his escort.

The Rev. Abbot Peterson, pastor of the First Church of Brookline, who gave the invocation, was escorted by Professor George W. Swett, secretary of the faculty. Professor James R.

Club of Western Pennsylvania.

Plans for the reunion were made by Charles E. Smith, president of the M. I. T. Alumni Association, with a committee composed of Hamilton L. Wood, '17, chairman; Percy R. Ziegler, '00; A. W. K. Billings, Jr., '26; Frank P. Scully, '15; Harold B. Richmond, '14; Raymond S. Stevens, '17; Ralph T. Jope, '28; Henry E. Worcester, '97; Donald G. Robbins, '07, and Edwin D. Ryer, '20.

Jack, head of the department of naval architecture, marched with Admiral C. P. Snyder, commandant of the First Naval District, who represented the United States Navy. The representative of the army, General W. H. Tschappat, chief of ordnance, had as his escort Colonel S. C. Vestal, head of the department of military science at Technology.

Governor Curley Among Guests

Mayor Richard M. Russell of Cambridge was escorted by Dean William Emerson of the school of architecture, while Dean Harry M. Goodwin of the graduate school marched with Mayor Frederick W. Mansfield of Boston. Dean Harold E. Lobdell escorted Charles E. Smith, president of the Technology alumni association, and Professor H. E. Rossell of the department of naval architecture escorted Commander E. R. Norton of the construction corps, and aide to Admiral Snyder. They were followed by Professor Dugald C. Jackson, head of the department of electrical engineering, and Professor Frederick H. Bailey of the department of mathematics, both of whom are retiring this year after long service on the faculty. Registrar Joseph C. MacKinnon and Professor Ralph G. Hudson, chairman of the committee on graduation exercises and senior week, marched together, followed by Major J. F. Timilty and Adjutant General W. I. Rose, military aides on the staff of Governor Curley.

Then came members of the corporation followed by members of the class of 1885, the men who were graduated from the Institute half a century ago. The last division of the procession was composed of more than a hundred members of the faculty.

At the head of the long procession of candidates for degrees was Walter H. Stockmayer, of Rutherford, N. J., president of the class of 1935. With him were the class marshals, Hal L. Bemis of Saint Davids, Pa., Henry Fiske King of Arlington, Mass., and Donald C. Gutleben of Philadelphia. Their faculty marshal was Professor Jesse J. Eames. The candidates took their places near the front of the hall and remained standing while the procession of guests of honor, corporation and faculty moved onto the stage. At 11 o'clock Chief Marshal Macomber made the traditional announcement opening the sixty-eighth graduation exercises of the Institute. The

Employment Increase Noted in Fund Report

Loans Of \$792,016 Have Been Made By Committee

In a report on the operation of the Loan Fund of the Institute an improvement in economic conditions with an increase in employment of science and engineering students was indicated as the loan fund approaches its fifth year of operation.

Established in 1930 with an endowment of \$4,200,000, the loan fund has been directed by a committee composed of Charles L. Hayden, chairman, Gerard Swope, Edwin S. Webster, Pierre S. duPont, and John E. Aldred. The report, submitted to the committee, was signed by Dean H. E. Lobdell, chairman, and Bursar Delbert L. Rhind, secretary of the loan fund board, which passes on applications and administers the fund.

1335 Students Received Loans

Since the fund began operating, 1,335 graduate and undergraduate students have received loans amounting to \$792,016, to assist in financing their education at the Institute. The

Rev. Peterson then made the invocation, after which Dr. Compton introduced the commencement speaker, Dr. Isaiah Bowman.

Take Oath in R. O. T. C.

Administration of the oath of office in the Officers Reserve Corps followed the commencement address, and General Tschappat made a brief address to the group to which he presented commissions a few minutes later. Admiral Snyder made the address to the naval constructors.

After the presentation of degrees, Dr. Compton announced the various scholastic honors and prizes and made his address to the graduating class.

Following commencement exercises, Dr. and Mrs. Compton gave a luncheon at their home on Charles River Road for members of the class of 1885. This afternoon the graduates and their friends, alumni and members of the faculty will attend the president's reception at Walker Memorial, following which there will be a tea dance. The senior ball, final event of the commencement activities, will be held at the Hotel Statler this evening.

loans are made at low interest rates on terms which permit repayment in small amounts over a period of years after graduation.

More than \$122,000 has been repaid to the loan fund since 1931 by 676 students, which means that approximately 66 per cent of all maturing obligations have been met.

"The graph showing the percentages of maturing notes paid," says the report, "has been rising steadily since midsummer of 1933, from a low point of 43 per cent to its present figure of 66 per cent, which reflects the fact that placement of 1934 graduates was considerably better than those of the class of 1933. A large percentage of the class of 1935 graduating in the upper half of their class has already found employment. In fact, many have had three or even four offers, enabling most of them to secure just the type of opportunity desired. Hence, it is to be expected that the percentage of maturing loans paid will continue to rise during the coming fiscal year, 1935-36."

"When it is considered that all repayments have been due from men less than four years out of the Institute, the condition of the fund is attested and also the ability of the industrial system to absorb the better grade of technical graduates is strikingly demonstrated."

51 Graduates Delinquent in Payments

"Many of the men now in arrears have made partial payments, and all but 51 whose total unpaid matured obligations amount to \$8,722 are paying interest regularly and have been granted extensions of their notes. It is reasonable to suppose that, given time, most of these men in arrears will be able ultimately to discharge their indebtedness. Repayments due during 1931-32, for example, are now 85 per cent paid. As a guaranty to offset the \$8,722 which is at present being carried 'past due', the fund has already received interest payments totalling \$29,341."

The loan fund has made it possible for many students of outstanding ability to secure an education which they otherwise might not have been able to afford. Good academic standing is required of all applicants, who must also successfully pass a physical examination and be recommended as to character, personal bearing and professional promise.

The Massachusetts Institute of Technology

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THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY offers courses in the following fields of study:

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 - City Planning
- Biology and Public Health
 - School of Science
 - Chemistry
 - General Science
 - Geology
 - Mathematics
 - Physics
- Aeronautical Engineering
 - School of Engineering
 - General Engineering
 - Mechanical Engineering
 - Options: Automotive Engineering
 - General
 - Power
 - Production
 - Refrigeration and Air Conditioning
 - Textile
 - Military Engineering
 - Mining Engineering and Metallurgy
 - Options: Metallurgy
 - Mining Engineering
 - Petroleum Production
 - Physical Metallurgy
 - Naval Architecture and Marine Engineering Ship Operation
 - Sanitary Engineering
- Building Engineering and Construction
 - Options: Chemical Engineering
 - Civil Engineering
 - Industrial Practice
 - Mechanical Engineering
- Chemical Engineering
 - Options: General
 - Geodesy and Seismology
 - Hydroelectric
 - Transportation
- Chemical Engineering Practice
- Civil Engineering
 - Options: General
 - Co-operative
- Electrical Engineering
 - Options: Communications
 - Co-operative
 - Electrochemical Engineering

Each of the above courses is of four years' duration, with the exception of Architecture, City Planning, and the Co-operative Course in Electrical Engineering. These three courses extend over a period of five years.

A five year course is offered which combines study in Engineering or Science and Economics or other social sciences. This leads to the degree of Bachelor of Science in the professional field and the degree of Master of Science in Economics and Engineering or Science.

Graduate courses leading to the degrees of Master of Science, Master of Architecture, Doctor of Philosophy, Doctor of Science, and Doctor of Public Health are offered. A course in Public Health is offered, which is essentially equivalent to that prescribed for the degree of Master of Science, and leads to a Certificate in Public Health.

Graduates of colleges or of scientific schools of collegiate grade, and in general all applicants presenting satisfactory certificates showing work done at another college corresponding approximately to at least one year's work at the Institute, are admitted to such advanced standing as is warranted by their previous training, and are given credit for our required subjects, including the entrance requirements, so far as they have been satisfactorily completed.

The Summer Session extending from June to September includes most of the subjects given during the academic year.

For information about the methods of admission from secondary schools, communicate with the Director of Admissions.

Any of the following publications will be sent free upon request:

- Catalogue for the academic year
- Summer Session Catalogue
- Architectural Education—Undergraduate and Graduate
- Educational Opportunities at the Massachusetts Institute of Technology
- The Graduate Schools of Science and Engineering

Correspondence should be addressed to the Director of Admissions