Army Honors Jimmy Doolittle

Brigadier General James H. (Jimmy) Doolittle, who came into the spotlight two days ago when it was announced that he had received Doctorates of Technology, graduated in Aeronautical Engineering, and was a member of various important work here at the Institute.

Professor Bernard S. Rusk, president of the Institute, was present at the graduation exercises. He was accompanied by the President of the Senate, who performed the duties of the President of the Senate.

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Beaver Key Selects Elections

Future Sports Plans Discussed At Meeting

The last meeting of the Beaver Key Society, held last Wednesday in Room 10-500, resulted in the election of three new officers and form- ing of intramural athletic plans for this Summer and next Fall. It was announced that Fred Gardner, president of the society; Walford F. Davis, Jr., ‘43, was elected vice president; and Gilbert Graves, ‘43, was elected secretary. Steven H. Brown, ‘44, was elected chairman of the committee on Future Sports Plans.

Gardner also announced that the Beaver Key Society has been invited to consider the possibility of joining the new fraternity, the SAEs (Signal Corps, aviation section, he has been made an honorary armed forces, and active writers for middle school and frequency of publication of the school. The paper has received an education in the application of science to technical problems on applied mechanics and theoretical mechanics. The paper has also been recognized as the leading scientific journal in the field.

The program was planned after receiving suggestions from a representative of the Signal Corps, who was present, and from several of the students interested in the development of the school's curriculum. The program provided for lectures on various subjects, including electrical, mechanical, and civil engineering, as well as a discussion of the problems facing students in the field.

The Tech is Rated as “Good” By A.C.P.

The Tech, official news organ of the Massachusetts Institute of Technology, has received word that the newspaper has been “rated as good” in the Associated Collegiate Press, a national weekly newspaper. The Tech has been awarded this Honor Rating several times in the past few years.

The college ratings are based on many counts, including the number of pages carried, the amount of advertising, and the number of issues published. The Tech has received high ratings in all three categories.

During its history, the organization has expanded greatly, with the addition of new members and the increase in the number of issues published. It has also been recognized for its high standards and its dedication to the advancement of knowledge.

Dr. Compton Will Explain New Plans For Service In Nation’s War Effort

Second Convocation Of Year To Be Held In Great Court Tomorrow at 10:40 A.M.; Announcement Will Be Important

The complete details of the new Army enlisted Reserve Corps as well as other programs for student enrollment will be announced by President Karl T. Compton at a convocation of the student body in the Great Court tomorrow morning at 10:40 A.M. Dr. Compton will explain the plans to the student body and will announce the details of the new plan.

Solons Grant Class A Rating To Debaters

Institute Committee Reinstates Expelled Officers

Voted a Class A activity by the Institute Committee at its meeting last Wednesday, the Principalship has been reinstated to the official status of the organization in the absence of the organization in the absence of the organization.

It was pointed out that the activities had been dormant since their dissolution by a committee of five members, headed by Dr. Compton, last fall. The new plan will be announced by President Karl T. Compton at a convocation of the student body in the Great Court tomorrow morning at 10:40 A.M.

Activity Reformed

Group formed under the sponsorship of the Massachusetts Institute of Technology, who have been elected for future activity. The Committee voted to officially dis- solve these societies.

The Tech Will Distribute Special Convocation Program

The Tech will distribute a special commemorative program today at the Institute Convocation. The program will contain the speech of President Karl T. Compton and other matters of interest to the student body.

Dramashop Will Select Students Who Are Willing To Make Sacrifices To Act

“Dramashop will depend for its existence upon students who are willing to make sacrifices in order to act,” said Professor T. H. Dukles, Head of the Dramashop, who was elected for future activity.

After serving for about a year and a half as a Class A activity, the group discovered that it was becoming more and more popular, and we were able to expand its membership and organize it into a more effective organization. We are now able to provide a program that is both interesting and informative.”

(Continued on Page 4)

Lowell Institute Graduates 179

Mr. John J. Robinson

Graduation exercises of approximately 179 members of the Class of 1943 of the Lowell Institute School, which is conducted under the auspices of the Massachusetts Institute of Technology, were held in Walker Memorial at 8:15 o'clock yesterday morning, May 30, with John J. Robinson, president of the New England Sugar Beet Improvement Company, making the address.

Dr. Lawrence Lowell, president-elect of the Institute, was a sole trustee of the Lowell Institute School, conducted under the auspices of Harvard University and the City of Cambridge.

Established in 1839, the Lowell Institute School has offered courses in mechanical, electrical, civil, architectural, and chemical engineering, for a third of a century. It was founded to meet the increasing need for trained engineering personnel.

The subjects to be covered by the Tech include factory production, accounting, and technical writing. The Tech will be conducted on a more formal basis, with emphasis on the sciences preferred.

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(Continued on Page 4)
Neoprene is outstanding

The outstanding synthetic being produced today is neoprene. It has its uses in a vast number of fields, perhaps since 1931 and is probably the most versatile of all synthetics to process. Suitably compounded neoprene products resemble crude rubber in appearance and have the added advantage over crude rubber of being largely oil and water resistant.

Neoprene is manufactured from acetylene, which is readily obtainable from the calcium carbide product of the electric furnace. Intermediate products are vinyl acetylene which on treatment with hydrochloric acid and isomerisation yields chloroprene which in turn polymerises to neoprene rubber.

20,000 Tons Neoprene

Neoprene however is not going to be produced in quantities larger than 20,000 tons a year according to the present program, because it is rather expensive (the present market price is about 30 cents a pound as compared with a normal price of crude rubber of 14 or 15 cents a pound and because certain raw materials such as chloroprene are required for its manufacture.

The accent is being put on the petrochemical type of synthetic rubber at the present time. They are either polymers of butadiene rubber or copolymers of butadiene with styrene (S-C6H5-C6H4-C)- or with acryllic (C2H5-CH=) in the ratio of 1 to 2. The butadiene polymer is called Buna S and is according to all reports the best material for the manufacture of tire treads. The Germans, who are incidentally the originators of Buna S, have been using this synthetic tire rubber for a number of years. But even the Germans have never quite succeeded in manufacturing tire treads without the use of as much as 60 per cent oil and 40 per cent natural rubber. It has been very

There is no question that German synthetic tire rubber is worth 50 per cent more than natural rubber in the inside parts of the tire and 60 per cent more in the outside parts. It is a very poor substitute for natural rubber, and because certain critical raw materials such as chloroprene are required for its manufacture.

Most synthetic rubbers are not very satisfactory in their general physical properties and are not nearly so fine when compared with natural rubber. However, the Germans have not been able to produce rubber that is much like natural rubber even without the use of much cheaper materials and because of this the Germans are not likely to produce many synthetic tires until such time that they completely eliminate natural rubber from their production.

The production in all parts of the Western hemisphere is a rapidly dwindling source cannot be expected to last even with the present severe curtailment of civil aviation until after March 1943.

Rubber shortage will be solved

With synthetics and grown rubber

It is the unanimous, yet incontestable fact that the "omniscient" Father Christmas has not made one effort at this moment of about ninety-five per cent of the national rubber. The strategical importance and the vital part that rubber plays in our national economy and war effort have been forcibly brought home to the American public recently. Fortunately, the foresight and imagination of the Government a stock-pile of rubber was set up right after the declaration of war. This rubber rapidly dwindling store cannot be expected to last even with the present severe curtailment of civil aviation until after March 1943.

Plains have been made and partly put into effect to grow the rubber-prodiding Guayule shrub in the South-West of the United States, and to increase rubber's production in all parts of the Western hemisphere. Unfortunately rubber growing is a slow and tedious business and it will be several years before we can expect any considerable quantities of natural rubber from home sources.

Synthetics are main hope

Our main hope for the speedy relief of the rubber crisis is synthetic rubber. The phrase "synthetic rubber" is misleading because no one has ever made a true synthetic copy of the natural product, but rubber like materials having elastic properties resembling those of natural rubber to a certain extent have been made by chemists.

Natural rubber is a physico-chemical colloidal system of epoxidised hydrocarbon which is having a very high, though somewhat indefinite molecular weight. The molecules are long chains of the basic isoprene unit whose structure is:

-CH2-CH=CH-CH=CH-CH=CH-CH-CH=CH-CH=CH-

It is a very interesting fact that a total amount of all synthetics have been made by chemists.

The commonly called synthetics are nearly all polymers or copolymers of butadiene or butadiene derivatives or of chemically related compounds.

Neoprene is outstanding

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Five Tech Men To Compete In I.C.-A.A. Meet

Trackers: Wareham, Meney, Hall, Stewart, Miller to Make Trip

City championships cancelled this year, Ocean Henley varsity track meets to be held on the 29th and 30th of May at the Vermont High School Stadium in New York City. According to present plans the entries will be: Bob Wareham in the high hurdles, Eyes and Miller in the field events, and Joe Meney in the hammer throw. The Vermont High School Stadium will be the site of the meet on the 29th.

The New England meet has been the goal of Tech teams in the past, as a comparison of the accomplishments of the Beaver under-17, with those of rival schools might prove interesting. It is unfortunate that the meet was canceled since the Tech tracksters have been running in fine marks throughout the spring season.

The team consisting of three members of the Meney, Hall, and Wareham in the hammer throw.

Awards For Crew Given At Banquet Last Wednesday

The annual crew banquet was held last Wednesday, May 20, in the Whitingos Hall. The guest speakers included Football Captain, George Owen, Marshall McGuire, '42, last year's varsity crew captain, Dr. John A. Rockwell of the Advisory Council on Athletics, head coach Robert Moch, and freshmen coaches James Rockwell and Nelson. The toastmaster for the evening was Carleton F. Bryant, the manager.

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SOLDIER SAILOR OR STUDENT

—whatever your role may be in the war program, physical fitness is an essential! That means a diet that includes plenty of daily supply of milk... at least one pint every day. Whiting's Milk Company is proud indeed to be serving Technology. This fine, old New England milk with the best marks set by athletes during the spring season.

Lange and Nelson Will Captain Team

Because the Class of 1943 will graduate next February, not allowing those Seniors who are on the varsity crew to play next season. Bob Lange was chosenvarsity captain of the team, while Ken Neill was elected regular captain. Morty Warchaw was appointed varsity manager of the team. The crew selectors, freshmen, and overcoaches, those elections, freshmen, and overcoaches were voted as the varsity crew at the annual tennis banquet, which was held last night at 6:30 P.M. In the Dutch Room of the Graduate House.

It was also revealed at the banquet that an informal program of intramural tennis matches has been arranged for this season. Don Stark, this year's varsity manager, is the coach, and he has requested that anyone desiring to play in these matches get in touch with him. The first match will be held on June 18, against R.C.

THE TECH

Track Summary 1942

Events New England '42 Marks

220 Yds. L. H 24.4
220 Yds. L. H 24.4
110 Yds. H 15.8
110 Yds. H 15.8
100 Yds. H 10.4
100 Yds. H 10.4
Shot 51' 1/4" 59' 8 1/2"
Shot 51' 1/4" 59' 8 1/2"
H. H. 56'' 1''
H. H. 56'' 1''
Hammer 161'' 102''
Hammer 161'' 102''
Javelin 91' 34'' 62''
Javelin 91' 34'' 62''
Pole Vault 17' 5/16' 11'
Pole Vault 17' 5/16' 11'

Beaver Peats

BY GARD SLOAN

Choose-Up Scouts

Will Race This Summer

On June 5, when summer school starts, Pat Manning will begin crew activities for all those with the slightest interest in rowing, whether they have had experience or not. The whole idea of the thing is pure enjoyment, to row for the fun of it.

In general on Mondays the boys will get together and choose up teams. The teams will decide what times they wish to practice and how much they want to row. Occasionally, perhaps even once a week, races between the boats will be run, a mile or the baskey being the distance. No vassal cliques will be allowed, probably no weight requirements will exist, and all the equipment will be available. This non-mandatoryrowing will enable crew men to keep in condition, but the idea is to row for the fun of it.

Oscar Hedlund and Bob Bowie "To Keep the Cinders Flying"

Starting June 8 either Oscar Hedlund or Bob Bowie will be on Briggs Point to greet any man who would like to do a little tract or field work.

DO YOU DIG IT?

ANNOUNCEMENT READER N. 156, ONE HUNDRED SEATS FOR THE SLUGS.

WHAT? SAY?

"Hey, Dilly, when Icobod Crane does a houdini, let's blitz the junkman's delight to the town pump and milk the white pepsi-cola cow!"

"English translation Joe Philibanks is suggesting to his friends that, as soon as class is over, they hop in the car and hurry down to the campus canteen where they can slip a bit or two into the Pepsi-Cola fountain. "That's also thinkin'—and plenty nice detail."

WHAT DO YOU SAY?

Send us some of your burst slang. If we use it you'll be ten bucks richer. If we don't, we'll shoot you a collection slip to add to your collection. Mail your burst to College Dept., Pepsi-Cola Company, Long Island City, N. Y.

Pepsi-Cola is made only by Pepsi-Cola Co., Long Island City, N. Y. Bottled locally by Authorized Bottlers.
Collaboration and Travel Opportunities

**O.C. Announces Summer Plans**

Rock-escalading, Camping, Head Activity List

Intending to extend its policy of supplying the type of recreation that so many students have so enjoyed in previous years, the O.C. Club promises a summer program as a possible way to utilize their facilities. During the past year, a dozen varied types of trips seem to have attracted more than three hundred students. The summer months will see the O.C. Club members horse-back riding, canoeing, camping, bicycling, the usual scenic drives, hikes, and on beach parties. There are to be several expeditions per week.

To introduce this activity to those who must remain here this summer, a trip to Blue Hills is planned. The group is to leave another is to cycle, and a third is to ride. All will assemble for a food, singing, and camping before the departure for home. This excursus is to be held Sunday, June 14, and all students are welcome.

Those who have any plans next Monday may be interested in a joint trip with Wednesday this Sunday. Horse-back riding will be the feature of the morning and canoeing that of the afternoon. Supper and canoeing, exclusive of the expenses of the morning and canoeing is to be served.

The following students have been requested to register at the O.C. Club to represent their respective schools:

- Robert A. Plachta, '44
- Robert S. Barlow, '44
- Langdon S. Flowers, '44
- Robert B. Homer, '46
- Robert D. Belcher, Jr., '46
- Robert A. Frisch, '46
- Robert B. Belcher, Jr., '46

Walker Committee Open

The meeting, begun at 5:20 P.M. Tuesday, will continue at 6 P.M. Wednesday. Members Meger will be absent, Schaefer and Warden sent prostes, and Maxwell was late. It was announced that the Walker Memorial Committee would be open this summer for a second season of the present attendance rules. The present attendance is indicated at least until the next meeting, and will be continued upon then. The attendance of that proxy is shown to the secretary. (b) Members who participate in those inter- ests of synthetics available in the economic future, at their present conditions of synthetics rubber, but they are at present only of secondary im- portance. Butyl rubber which is a standard material for making rubber goods, because it is more cheaply than the Buna type, and could not fact continue with natural rubber on the open market. It has however the serious disadvantage of not being capable of being im- proved in the same way as crude rubber, because of the nature of various ingredients such as solid rubber and other reinforcing agents.

In assessing the qualities of synthetic rubber, the point of view of durability and performance, it is well to bear in mind that our knowledge and experience in the field is very limited. The quanti- ty of synthetics available in peacetime have been very small, and the high end of the marketed materials killed the economic incentive and consequently the progress made possible for research into the problem have been rather limited.

Summer Program (Continued from Page 1)

By the American Society of Bacteriologists, a summer program has been announced for medical students. This program will qualify both men and women for special work in various fields of public health.

In addition, the Institute is offering four accelerated programs for graduate students, leading to a degree of Master of Public Health, or to the Certificate in Public Health. This program begins June 12 and continues through August 15, 1942.

**Doolittle**

(Doolittle's continues from Page 1)

...and take your train carefree!

Don't start your vacation crammed up with luggage problems when a phone call to Railway Express delays you of all such troublesome details. We'll call for your trunk and bags, speed them to your destination, deliver them and you needn't worry about your baggage problem or expense. The low price includes insurance, and double receipts, to say nothing of pickup and delivery at no extra charge within our regular vehicle losses in all cities and points. You can put your trust in us to get your trunk cost-free. Railway Express. Just phone for information or service.

**R. C. WIRE TELEVISION, INC.**

NATION-WIDE RAIL-AIR

SAFETY BAGGAGE BOXES

SHIPPING-STOREAGE

Don't start your vacation crammed up with luggage problems when a phone call to Railway Express delays you of all such troublesome details. We'll call for your trunk and bags, speed them to your destination, deliver them and you needn't worry about your baggage problem or expense. The low price includes insurance, and double receipts, to say nothing of pickup and delivery at no extra charge within our regular vehicle losses in all cities and points. You can put your trust in us to get your trunk cost-free. Railway Express. Just phone for information or service.