Weather Balloons Explore Heavens Over Middle-West

Results of Survey Are Expected to Yield Valuable Data in Making Forecasts

WEATHER PLANE ASSISTS

The study of weather conditions in the stratosphere being made by the Institute at Lampit Field, Rockford, Ill. St. Louis, Missouri, was initiated last Tuesday when weather conditions were favorable for the take-off of the first of forty balloons which are being used in conjunction with instruments measuring atmospheric conditions. Plans for a series of high altitude flights over Missouri have also been made by Dr. Henry R. Harris, associate in the pilot of the weather research airplanes.

Balloons Reie in Radiated Air

The balloons, which are about four feet in diameter when inflated, were released at intervals of two hours from Lanmont Field Airport. Each balloon carries specially designed instruments weighing only a few ounces each to automatically record temperature, humidity and atmospheric pressure. The balloons have floated many miles above the earth and finally crossed an area of the air of the stratosphere. The instruments are the upper part of the model, releasing air from the balloon and allowing the fragments of the broken balloons to float away.

Earthquake Stress Recorder Designed

One-Ounce Device Saves Millions in Earthquake-Resistant Geographical Calculations

A new device known as a stress recorder which will save millions of dollars in earthquake-risk calculations has been designed by A. C. Ruge, research associate in seismology in the Department of Civil Engineering. The instrument, which is now being used in the study of the effects of earthquakes in buildings, measures the stresses in the models of building frames. In general open house for undergraduate activities and the other afternoon activities this afternoon in 10-250 at 3 o'clock.

Dr. Shapley, who is internationally known as one of the greatest of modern astronomers, received his doctorate at Princeton in 1911, and for seven years served as a member of the staff at Mount Wilson Observatory. Since 1918 he has directed astronomical research at Harvard since 1911. Last year he was appointed a fellow member of the coronet of the King of Technology. For his achievements as scientist and educator, he has been awarded an honorary doctorate of laws by the University of Missouri and the second degree of doctor of science by the Harvard. He has been the recipient of the major prizes of the American Academy of Arts and Sciences. Next May he will receive the gold medal of the Royal Astronomical Society, and at the same time will deliver the annual Darwin lecture in England.

Balloons Made

In Afternoon

Several Places May be Opened

Weather Plane Assists

Dr. Harlow Shapley, director of the Harvard College Observatory, will discuss "Engineering Problems and Practices in the Construction of Galaxies" in the fourth Alumni lecture this afternoon in 10-250 at 3 o'clock. Mr. Halsey, who is internationally known as one of the greatest of modern astronomers, received his doctorate at Princeton in 1911, and for seven years served as a member of the staff at Mount Wilson Observatory. Since 1918 he has directed astronomical research at Harvard since 1911. Last year he was appointed a fellow member of the coronet of the King of Technology. For his achievements as scientist and educator, he has been awarded an honorary doctorate of laws by the University of Missouri and the second degree of doctor of science by the Harvard. He has been the recipient of the major prizes of the American Academy of Arts and Sciences. Next May he will receive the gold medal of the Royal Astronomical Society, and at the same time will deliver the annual Darwin lecture in England.

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REMEMBRANCE OF THINGS PAST
A

PARIS voted and the French government was on the verge of collapse, all because the people discovered how oppressive government had become. The government was too much like the four corners of the earth, drawn together for the purpose of supporting the empty pocketbook. The French had long had a reputation for possessing an easy, hard-toutrouble attitude toward any function which on the surface of the matter was seen as entertaining to the many than can experience at home. They are drawn here by memories, memo-

PHOS GROWS CANNY

THE I.on of the Managing Board of The Tech may not reduce the editorial output from twenty-five to fifteen cents would be good news to an undergraduate body that 1926 has seen no reduction in publication prices except that of this paper. Foo says, incidentally, that it is the wish of the editors to publish two more volumes this year. Newspapers, magazines, and the like, fall into that class of petty luxuries which students have suffered more than any other in the period of depleted incomes. Unfortunately Technology's publications have been all too slow in cutting prices to fit changing times. The last year was The Tech made to sell at three cents. It now remains for the other two Tech

PARADISE FOR HARVAR

DEAN Alfred C. Haldeman of Harvard has submitted to President Conant a plan which would inaugurate a system of radio broadcasting. The plan would make the Record’s attendance of classes arbitrary. Students who must not only be driven to water, but require pedagogic prodding, but for the student whose choice they seemed eager to dictate. They are, indeed, a form of slavery which is the same, yet subtlely changed, is unquestionably the cause of the enrollment of any college) it would mean a paradise of ineptitude and probable oblivion.

AUSTRALIA'S TIDE OF EMIGRANTS

In the country, political graft has become

AN ALL WIND

In this country, political graft has become a national institution, probably as bad as that of France; and despite all that has been written in the newspapers, the only political units of the world honest and efficient governments. But in the political units of the world honest and efficient governments, no scandals in its operation might turn the Our national administration has done its best recently submerged for the first time in years. It is no longer such a good name as its reputation, but rather the popular opinion of the people. Thus, many of our most a national institution, probably as bad as that of France.

THE PASSIVE RESISTOR

The Passive Resistor is the sagacity and competent hand-

Elections

VOLKME LIV is pleased to announce the following selections to the staff of The Tech: Benjamin B. Davis, Staff Advertising Manager; Oscar A. Fick, Jr., Asso-

THE TECH

ALUMNI AND ATHLETICS

It appears that Yale University's football team

New Sound System Now In Operation

The sound system which has been a part of the program of the past two years is now in operation for the first time this fall. It will be used regularly in the Future Intercollegiate Newspaper Association meetings for the convenience of both editor and student.

Our national administration has done its best recently submerged for the first time in years. It is no longer such a good name as its reputation, but rather the popular opinion of the people. Thus, many of our most a national institution, probably as bad as that of France.

ATHLETICS AT QUOTRE COULOS

Athletics at Quotre Coulos are quite free from any scandals in its operation. Thus, many of our most a national institution, probably as bad as that of France.
**FINE ARTS**

State Theatre Bldg., Mass. Ave., 1 to 11 P. M.

**2nd sensing WEEK MEXICO**

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**FIND THE ABCS OF PIPE TOBACCO**

- A sensible package
- 10 cents

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**Texture Research**

Six Weeks of Laboratory Work and Lectures Included

The Institute is again offering a special course in textile research included for textile executives, as research directors, laboratory technicians, and others interested in this field, beginning March 2. Ten hours efficient use of the laboratory facilities of the nine of the group will be limited to 25.

The work is arranged to afford lectures and laboratory exercises on Friday and Saturday each week for six consecutive weeks, making it possible for men in the industry to attend conveniently. Twelve lectures will be devoted to textile analysis and will include discussions of the character and necessary for textile testing; the design of textile testing laboratories; bore, destructive analysis; mechanical testing machines; special textile testing machines; the measurement of special properties of fabrics.

Twelve lectures will be devoted to textile microscopy and will include discussions of textile microscopes and how to use them; light and the microscope; spectrometric analysis; theory of textile microscopy; applications of textile microscopy; rapid and precise; sectioning; color as it applies to textile microscopy; photomicrography of textiles; micro-analysis of fabrics; micro-analysis of yarns; and micro-analysis of fibers. The lectures will be illustrated with slides, motion pictures, and experiments.

In addition to the laboratory work performed by members of the class, opportunity will be afforded for extension studies. Successful completion of the work entitles the student to credit in the subjects taken. Each member of the group will be registered as a special student.

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**Solving Unsolved Castle Doubt on Honesty**

"To pay or not to pay, that is the question." And with quotations from Shakespeare that is the question facing a certain officer of the freshman class.

It seems that there is a puzzle into which our puts numbers. Then there are two classes, one to answer them into consecutive, order without removing them from the box.

The aforementioned class officer had read that the solution was impossible. He consequently bet another class officer two dollars that he could not solve the problem in two hours.

In an hour and a half the second class officer came out of his room with the impossible apparently accomplished. Now the first officer, after consulting his books again, does not know whether to pay or to ace the first officer of removing the blocks.

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**Highway Survey Solicits Aid of 10,000 Drivers**

Engineers Seek Information About Accident Hazards, Safeguards, and Driving Habits

Ten thousand automobile drivers throughout the state are having an opportunity to give engineers of the Massachusetts CWA Highway Accident Survey the benefit of their opinions on accident hazards, traffic safeguards, and driving habits in a questionnaire which is now being distributed.

In announcing the study, Colonel Robert C. Ledy, who is in charge of the survey being made under the direction of the Institute, emphasized the vital importance of the motorists cooperation.

"We are seeking the opinions and helpful suggestions of some 10,000 Massachusetts automobile drivers," he said, "because their experiences on the highways should enable them to give us valuable assistance. The highways are built for the convenience and pleasure of the people, and we feel it in a motorist's right to make suggestions for increasing the safety and pleasure of driving. Specially trained engineers will submit the questionnaires to a large group of motorists, who do not place themselves under any obligation in answering the various questions."

Test questionnaires distributed to determine what information would be most interesting to motorists as well.

(Continued on Page 14)

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**Boil, Dalton, Church & Hamilton**

80 BROAD STREET BOSTON

$ INSURANCE OF ALL KINDS

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**The best tobacco for pipes comes from Kentucky... and it's called "White Burley"**

WE use White Burley in making Granger Rough Cut. It comes from the Blue Grass region of Kentucky—ripe, mild leaf tobacco that just about tops them all for fragrance and flavor.

From the right place on the stalk we select the kind that's best for pipes. Then we make it into Granger by Wellman's Method and cut it up into big shaggy flakes.

White Burley tobacco—made the way old man Wellman taught us how to make it—that's Granger.

"Cut rough to smoke cool" is the way pipe smokers describe Granger—try it

---

**Granger Rough Cut**

the pipe tobacco that's MILD

the pipe tobacco that's COOL

---

...folks seem to like it
BELL ENTERED IN N.Y. C. SPRINTS

Friday, February 16, 1934

The Tech

Task Manager Star to Run Against Fast Competition

Track Captain Invited to Compete in 100-yard Dash

ONLY ENGINEER TO RUN

Dirk Bell, Technology's star sprinter, was invited to run in the special sprint event at the New York A. C. meet tonight. It was announced this week.

Bell's outstanding opponents will be Wadzney, Navy's star; John- son, freshman from Columbia; and Jarnell, Fordham's dash man. The latter was among the qualifiers for the dash in the special event at the Milestone games.

Bell in Better Form Now

Bell has come along slowly this season, doing very well in his first competition, but has gradually improved in the last few meets. This week Bell's games last Saturday broke the local record for the 50-yard dash, and at New York tomorrow he will attempt to continue his victories.

Bell will be Technology's only representative to compete at the New York meet.

Cagers Lose Eighth Game

Basketball Team Falls Before West Point, 52-21 in Slow Game

Playing the usual type of unorganized game, the Technology varsity basketball team fell before the cadets of The R. A. C., 52-21 on Monday night. The Engineers last Saturday broke the local record for the 50-yard dash, and at New York tomorrow he will attempt to continue his victories.

Bell will be Technology's only representative to compete at the New York meet.

VARSITY MATMEN

LOSE TO TUFTS

Jumpees Take Five Matches; Freshman Win, 195-129

In a meet that saw every bout contested by both teams, the Tufts matmen defeated the varsity team, 195-129, today. Captain Post and Captain Pole were the winners for Technology. George was forced to default his bout because he was unable to make weight.

The Technology freshmen defeated the Tufts freshmen by the score of 158 to 171 in a preliminary match last night.

Multinoy was entered in the 126- pound class, and it is expected that he will repeat his brilliant showing made at the New Hampshire meet, where he was one of the three Tech victors.

Several Changes in Line-up

Captain Wetherell, as usual, will look to an outside team for a few key changes to be made by tomorrow. Bradley, a victor at New Hampshire, hopes to compete here. Cy Ross, who beat the Engineers last Saturday, will be among the eligible candidates. The Engineers will hope to see the 160-pound class and the relay, among the 180-pound class.

The Engineers' six-pound class will also be among the eligible candidates. The Engineers' six-pound class will also be among the eligible candidates.

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DELAY TIMER TESTS

MOTORISTS' TIME LAG

(Continued from Page 1)

above average in ability to react quickly to stimuli, there is a possibility that the average man would take longer to respond.

To find out what the test is like, this reporter went out in one of the cars used in the investigation and took the driving test. Two cars are used in the test, the car carrying the measuring device with the observer being followed by the axle driven by the subject. After the lead car and the subject's car turned out on Memorial Drive, data was taken at intervals. With the attention of the subject's car directed on the stop light of Mr. James Jack and Mrs. Lionel Hamilios for Technology, and Mrs. Lyttle Bldg, Nice Marian Gilbert and Miss Laura Holmes for Wheelock.

The Combined Glee Clubs will ren-
ner "Jerusalem" by Parry and "As a
twice in summer" by Edgar. The Bow.

ing on your desk or table—or throw away vital energy

If you are a DRUMMER?

with arms hanging straight at your sides—stand
ning alert with your feet apart, the test is possi-
ble. See how long you can maintain this pos-
tion without being or losing your balance.

Averages time is one minute.

Jangled nerves are like a leak in your reserve of energy. And if you could count the units of en-
ergy a normally high-strung person wastes each day—the result would astonish you.

Jangled nerves make you throw away vital energy

How are YOUR nerves?

Jangled nerves make you throw away vital energy

Jangled nerves are like a leak in your reserve of energy. And if you could count the units of energy a normally high-strung person wastes each day—the result would astonish you.

So if you find yourself drum-
ing on your desk or table—or indulging in any other nervous habits—start protecting your nerves.

Get enough sleep—fresh air. Make Canary's Camel Cigarettes.

You can smoke as many Camels as you want. Their costlier tobac-
cos never jangle your nerves.

COSTLIER TOBACCOs

Camels are made from finer, MORE EXPENSIVE TOBACCOs than any other popular brand of cigarettes!

SMOKE AS MANY AS YOU WANT... THEY NEVER GET ON YOUR NERVES!
In the field of engineering, special attention is being focused on the development of new materials. The result is that between the old and the new, the older is generally more demonstrably profit-able, the engineer says to himself, "but his reason is wholly wrong." The facts of the analysis show that the increase in the numbers of engineers has more than tripled since 1890 to 1930 together with a forecast that in the next twenty years the rate of increase will continue. The growth in demand for such services will not be supplied by the numbers coming into the field, but by those caused by more complex earth-quake forces. Once the engineer has the data on the stresses in the beams and members of the building, it is a simple matter for him to apply them in his plans.

The significance of the instrument designed at the Institute is that it gives at once data of importance to the engineer. The models study the "deflections," or motions, of the models were measured, and the engineer determines the strain to which they were tested. The stress recorder not only marks the stresses but measures them. The significance of the science but can be used to determine the strains caused by simple forces, such as wind, as well as those caused by more complex earth-quake forces. Once the engineer has the data on the stresses in the beams and members of the building, it is a simple matter for him to apply them in his plans.

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