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**INSTITUTE GRADUATE
MAKES AUTOMATIC BOAT**

**Winkley '91 Finally Perfects
Mechanical Steering
Device**

**FINAL TEST MADE IN
NEW HAMPSHIRE**

E. Edwin Winkley, '91 has just completed an automatic boat regulator which is not subject to the easy demolition of the John Hayes Hammond, Jr., invention, which may be easily destroyed when the aeriels are hit. Mr. Winkley has completed an automatic arrangement which is set at the start and is then able to complete its course without further attention.

The story in the Boston Herald said in part:

"It is one of those inventions of which we say, in offhand phrase, that 'will revolutionize warfare.' Hardly that, perhaps. The expression has been applied to many others, such as

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the machine gun, the automobile torpedo, the airplane itself and 'wireless' energy, in all its applications, and yet war has gone on just the same.

"The secret, however, will constitute an important and effective military asset for the nation which controls it, and will necessitate a wide adjustment to meet its menace, if it can be met at all.

Used on Airplanes

"The device may be applied to airplanes, torpedo boats or tanks, which may be converted into infernal machines of the air, the sea or the land of the most deadly and irresistible nature. By its means, such moving vehicles may be kept on a predetermined course, controlled by mechanical means alone, without any outside influences whatever.

"There is no 'wireless' control from a distance, such as constitutes the essential feature of John Hayes Hammond, Jr.'s, invention, and which enabled the navy operators to start, stop and steer the battleship Iowa from afar on the cruise which excited so much interest and attention recently."

"The outstanding factor of Mr. Winkley's contrivance is that the apparatus is automatic in its operation. Once it is 'set' to traverse the calculated course, with all its deviations and angles, it is only necessary to start the engine. The machine will do the rest.

"I am a mechanical engineer," he said, "and I have been at it for 30 years, I graduated from Tech in 1891, and I have been at it ever since. When the war broke out I went to Washington as a dollar a year man and helped them the best I could.

Many Adjustments

"At the same time I worked at the perfecting of this machine. I did O perfecting of this invention. It was a slow job, of course. There were countless adjustments to be made and details to be worked out before it reached a stage where I felt justified in submitting it to the government."

"Mr. Winkley said that through Secretary of the Navy (then Senator) Weeks he managed to get his inventions brought to the attention of Gen. Peyton C. March, chief of staff, and by him it was put before the government experts. It was accepted—nominally—but owing to the investigation of the aircraft board, which was then in progress, they never had a testing out, although both Senator Weeks and Gen. March expressed the highest admiration and interest.

"The cold fact of the matter seems to be that if Mr. Winkley and his inventions were not exactly pigeonholed they were so hampered by red tape, government inefficiency and jealousies, that neither got what is generally termed 'a fair show.'

"In making his tests with his houseboat Mr. Winkley said that he had in mind the fact that if his apparatus could successfully control and guide such a craft, its success was assured. The houseboat has a speed of but five miles an hour, is difficult to steer and is easily skidded on the surface by tide and wind.

"Mr. Winkley is preparing for another test on a larger scale, with a vessel fitted up with his apparatus, in Lynn bay, next month. It is likely to be an epoch-making event, of immense significance in future naval operations and, of course, in land and air manoeuvres as well.

THE TECH

THE TECH, the undergraduate newspaper and official organ of Technology, was established November 16, 1881.

The scope of THE TECH includes the reporting of all student activities at the Institute, of official notices, the doings of Technology alumni in the United States and abroad, and other articles of particular interest to the readers of the paper. Through the Eastern Intercollegiate Newspaper Association, of which THE TECH is a member, timely news from other colleges is available.

Calls for candidates are made several times during the year, the first competition, opening at the beginning of the fall term, being particularly for freshmen. Candidates may select either the operating or the financial division. The first includes news, editorial and feature writing, the sporting, alumni, photographic and art departments; the second embraces advertising, treasury and circulation work. The financial division offers an excellent opportunity to meet men in business and industry, and a chance to learn how to approach them. The editorial division gives men experience in meeting and interviewing other men, as well as in accurate, clear and interesting writing.

(T. C. A. Handbook)

GREETING TO NEW STUDENTS

I am glad to take this opportunity which the compilers of this little book have generously given me to greet the incoming Technology men. Being myself a newcomer to "Tech," I am in a happy position to know how you feel. I very much hope this little book will prove as useful to you as it surely will be to me and that you may find the Association which issues it as friendly and congenial as I have.

I have looked through last year's copy of the Technology Handbook and have been unable to find any propaganda or ax grinding in it. It is just what it appears to be, a book compiled by unknown friends of ours to help you and me to an understanding appreciation of what the Institute has to offer us.

We are all looking at the Institute as a place of opportunity—intellectual, moral, and spiritual opportunity. No one of these can we afford to miss. Without regard to age we find ourselves constantly preparing for something, and the most inclusive purpose of our preparation is for fuller, freer, and more inclusive purpose.

This book lists many chances not stressed in the Institute's official publications and thus may well serve us as a useful supplement.

ERNEST FOX NICHOLS

(As written for T. C. A. Handbook.)

W. C. CLAPP KILLED BY TRUCK

William Channing Clapp, the father of the Assistant Registrar of the Institute, died at the City Hospital last Thursday as a result of being hit by a motor truck not 200 yards from his home.

Mr. Clapp was starting for his office. As he crossed Boston street to get into a car, he was struck by the back end of a truck, operated by Maurice Morganstein. He was first taken to his home and later rushed to the City Hospital where he died not long after.

He had long been in the real estate business. He was a native of Dorchester, having been born there in 1843, and being the son of Lemuel and Charlotte Tuttle Clapp. His father's farm was taken up in 1630 by Roger Clapp and is a landmark in Dorchester.

Mr. Clapp graduated from the Dorchester High School in its first class, and served in the Civil War as a member of the 44th Massachusetts Infantry. He was a member of the Benjamin Stone Post of the Grand Army of the Republic.

Served in Civil War
After the war Mr. Clapp farmed for a spell and then entered the printing business with George H. Ellis. Eventually he quit printing and took up real estate, becoming a member of the firm of Holbrook and Fox. After Mr. Fox died, Mr. Clapp associated himself with the survivor, after which he went into business for himself.

Like Bailey Nicol Jarvey's father in Scott's Rob Roy, he was a deacon in the church and had been clerk of the parish of the First Parish Church of Dorchester for more than 45 years. He was a member of the Pickwick Club of Dorchester and was a member of the Horticultural Society.

Mr. Clapp is survived by his wife, nee Martha A. Kingman, his son Frank, the assistant registrar, and his son Sidney K. of the New York Water Works Department.

**BIG FIELD FOR TECH
MEN IN RUSSIA**

"Tech grads should think of jobs outside of the United States, especially in these days," said Barteau L'Hommiedieu, former engineering officer with the American Red Cross in Europe, who enters Technology after five years in fifteen European countries.

"Take Russia and Poland, for example," he said. "In Russia the Bolsheviks, in their effort to make Russia safe for the workingman and no one else, have systematically exterminated or driven into exile the technically trained classes. They have been forced to close the technical schools because of a lack of professors and of equipment. Since 1917, when the Revolution began, the technical schools have turned out practically no young engineers or otherwise technically trained men.

Poland Needs Technicians
"The Poles, having been divided since 1915 among three countries—Russia, Austria and Germany, have been unable to develop technically trained leaders. This great lack is sadly hampering their economic development right now, despite the technical missions which the United States, England and France have sent to Poland to try to teach modern methods in railroad, organization and construction.

"Then we should not forget China, specially now that the Allied Banking Consortium is actively engaged in floating loans for the modernizing of China's industries.

"Up to the present, with few exceptions, the height of travel for a Tech man has been South America, according to lists of addresses of alumni."

Asked about guarantees as to personal safety and protection of investments, Mr. L'Hommiedieu said that he was thinking primarily of the man who wanted to go out on his own, working with native contractors or with the respective governments. He pointed out that Russia has at last permitted the Hoover American Relief Administration to go into Russia under guarantees of the Russian government, and that capitalistic ventures are now being backed by the government.

A Ball of Water.

A soap bubble is merely a hollow ball of water containing air. The soap, partly dissolved, forms a very thin film or skin over the air which is endeavoring to force its way through it. This air exerts an equal pressure in all directions, and forces the soap-film out an equal distance from the center of the compressed air, thus forming a perfect sphere or ball. After the bubble has been floating about for a few moments, the water drips toward the bottom of the ball and collects there in drops. The weight of these drops pulls the bubble out of shape and increases the pressure of the air inside to such an extent that it breaks through the film and the bubble bursts.

Statement of the Ownership, Management, Circulation, etc., Required by the Act of Congress of August 24, 1912,

of THE TECH, published three times a week at Cambridge, for October 1, 1921, State of Massachusetts, County of Suffolk.

Before me, Notary Public in and for the State and county aforesaid, personally appeared Albert J. Browning, who, having been duly sworn according to law, deposes and says that he is the General Manager of THE TECH and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: General Manager, Albert J. Browning; Editor, Willard B. Purinton; Managing Editor, Stevens Bromley; Advertising Manager, W. B. Murdock, all of Cambridge, Mass.

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.) Prof. A. J. Robison, M. I. T., Cambridge, Mass. H. E. Lobdell, M. I. T., Cambridge, Mass. Paul C. Leonard, 30 Kingman Road, South Orange, New Jersey. All equipment owned by THE TECH TRUST FUND, Cambridge, Mass., and rented by the Current Volume.

3. That the above bondholders, mortgages, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statement embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is— (This information is required from the daily publications only.)

Albert J. Browning, General Manager. Sworn to and subscribed before me this 28th day of September, 1921, Charles Mitchell (My commission expires March 24, 1927.)



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