

# *Memories From the SEAS Time Capsules*

*The Eighth Decade: 1935-1944*



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# *New York Moments*

## *The Eighth Decade: 1935-1944*



- 1935 – Times Square.



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# New York Moments

## The Eighth Decade: 1935-1944



- 1936 – The Triborough Bridge, connecting the Bronx, Manhattan and Queens opens (part of it is shown).
  - It is renamed the Robert F. Kennedy Bridge in 2008.
- Robert Moses leads the construction of this and many other major transportation infrastructure projects in and near New York City.
  - Known as the “Master Builder,” but also for his lack of interest in improving public transportation and minimizing the negative impact his projects had on the affected neighborhoods.
  - Earned a Ph.D. in political science from Columbia University.



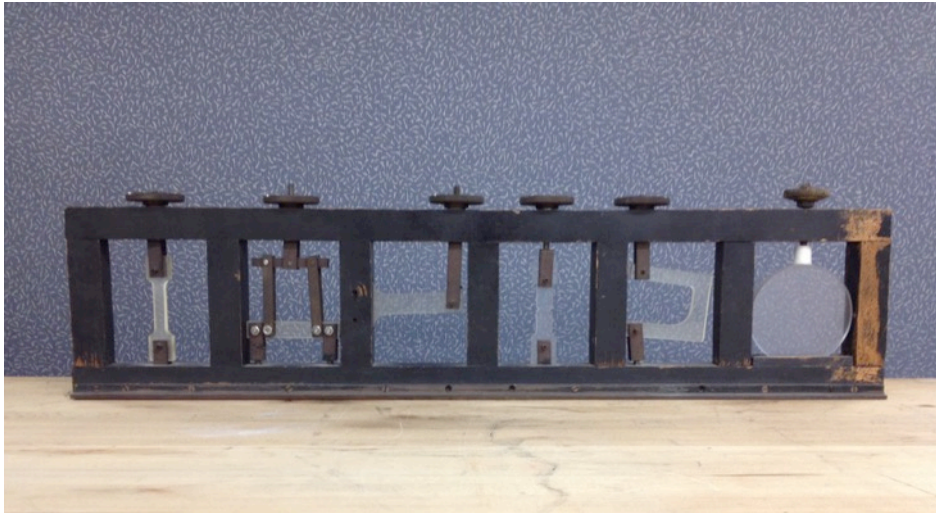
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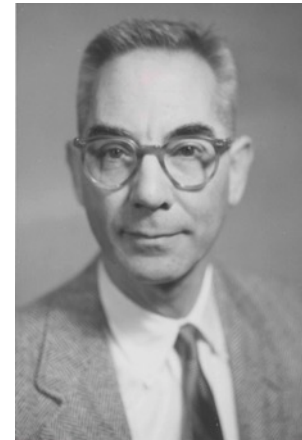
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- Pioneering photoelastic properties apparatus – by Prof. Raymond D. Mindlin, likely late 1930's.



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# New York Moments

## The Eighth Decade: 1935-1944



- 1936 – Milk truck, Greenwich Village.
- Horse-drawn wagons linger into the mid-1960s.



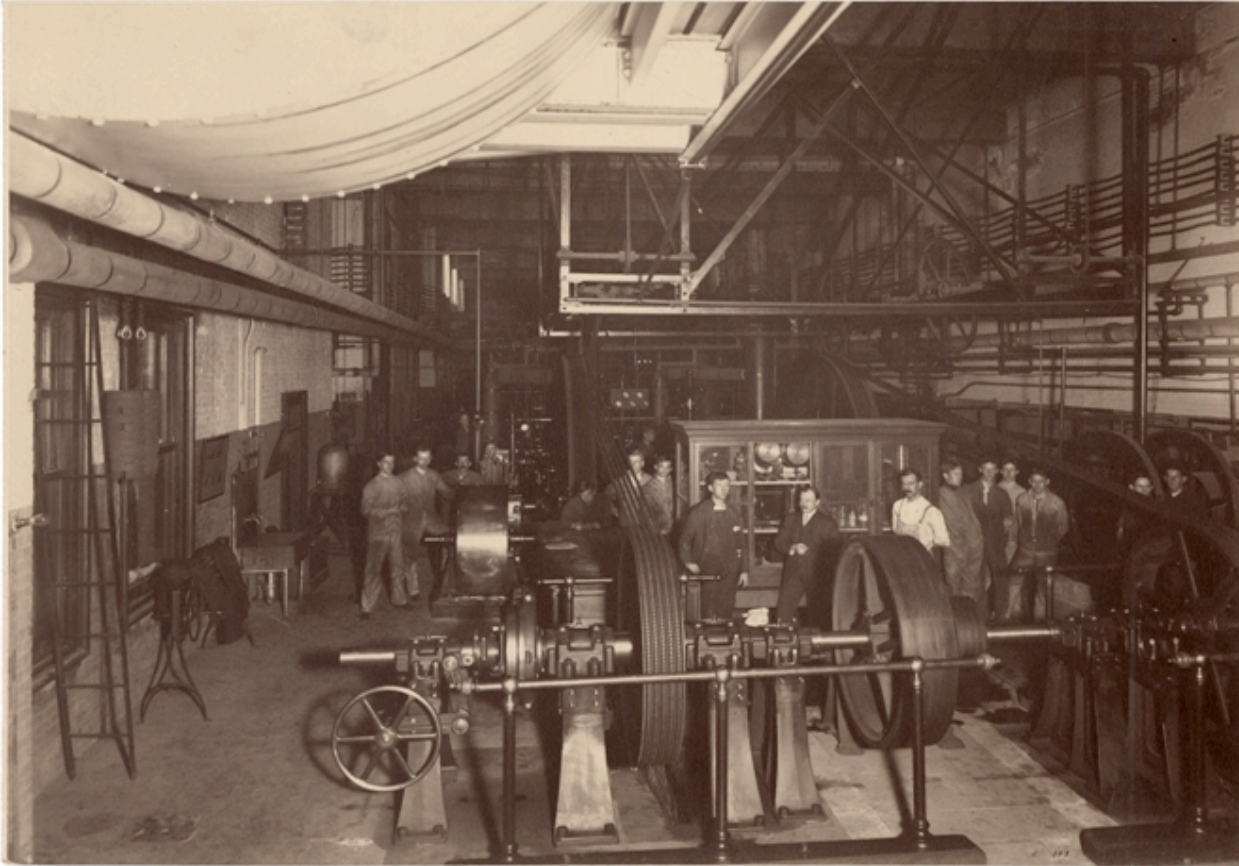
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- Mechanical engineering laboratory during this period.



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- Riverside Drive viaduct in 1937.
- First built in 1900.
- It is now one of the boundaries of the new Manhattanville campus.



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# New York Moments

## The Eighth Decade: 1935-1944



- The Cotton Club in 1937 after its reopening in midtown, with Cab Calloway (upper left), and at its earlier Harlem location c. 1930 (below).





# From the SEAS Time Capsules

## The Eighth Decade: 1935-1944

### Barker Describes Construction Plans for Engineering School

When President Nicholas Murray Butler's new expansion program for Columbia is finally completed, one of the largest scale developments on Morningside will be the Engineering School.

Dean Joseph W. Barker has already formed tentative plans for four new construction projects, which will create a real Engineering center on the Campus.

The Dean emphasized that the whole plan for Columbia Engineering School expansion has been drafted with the thought of allowing construction to be made in successive steps.

Although no definite order has been fixed for erection of the buildings, Dean Barker has already determined that his school's most pressing need is for an extension of laboratory space.

That extension will be made, according to present plans, by utilizing space which does not even exist on the Campus at present. It will be made by excavating the whole plot of ground between the present en-

gineering building, Low Library and University Hall.

Underneath that area will be built a sub-surface laboratory, artificially ventilated and lighted, and large enough to accommodate rooms for both Electrical and Mechanical Engineering experiments.

"Building underground like that," Dean Barker explained, "is really cheaper. Why I can build those sub-surface labs for around 45 or 50 cents a cubic foot; while a regular laboratory building would cost from 75 to 90 cents a cubic foot."

Then, on the corner of Broadway and 120th Street, next to Pupin, there will rise an eleven story edifice to house the departments of Chemical and Industrial Engineering.

Another in the series of buildings which will eventually comprise a vast engineering center at Columbia will be the Mechanical Engineering building, constructed atop the subterranean laboratories in front of the present School.

When this structure is completed, (Continued on page 4)

### Barker Tells Of New Plans For Expansion

#### Engineering School to Build 4 Structures In Proposed Center

(Continued from page 1)

many of the classrooms will probably be moved from the building which faces Broadway, in order to avoid the noise of that-avenue's busy traffic.

Other rearrangement of facilities will also be made, Dean Barker said, although the exact disposition of classrooms and labs depends largely on which structures are erected first.

Finally, the Engineering School needs room off the Campus for more extensive experimental work and research. Commenting on Dr. Butler's suggestion for a laboratory on the banks of the Harlem, Dean Barker said:

"There are certain extraordinary laboratory conditions, such as work with poison gases, high explosives, or high pressure apparatus, which are necessary to develop new methods and processes in engineering.

- The March 31, 1938 *Spectator* reports plans by Dean Joseph Barker for a "real" Engineering center on campus, with four new structures, to help with the School's most pressing need: new laboratory space.



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- 1938 – Times Square.



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## The Eighth Decade: 1935-1944

### Engineers Hold Open House on 75th Birthday

As part of its 75th anniversary celebration, the Columbia School of Engineering is holding Open House from 6 till 10 this evening and tomorrow from 9 A. M. to 12 Noon. Both the Science and Engineering laboratories will be open for inspection.

Several interesting demonstrations, including the working of Professor Edwin Armstrong's now famous static-free frequency modulation radio and other modern scientific developments, will be presented during the Open House periods.

- SEAS 75<sup>th</sup> Anniversary.
- From *The Spectator*, November 10, 1939.



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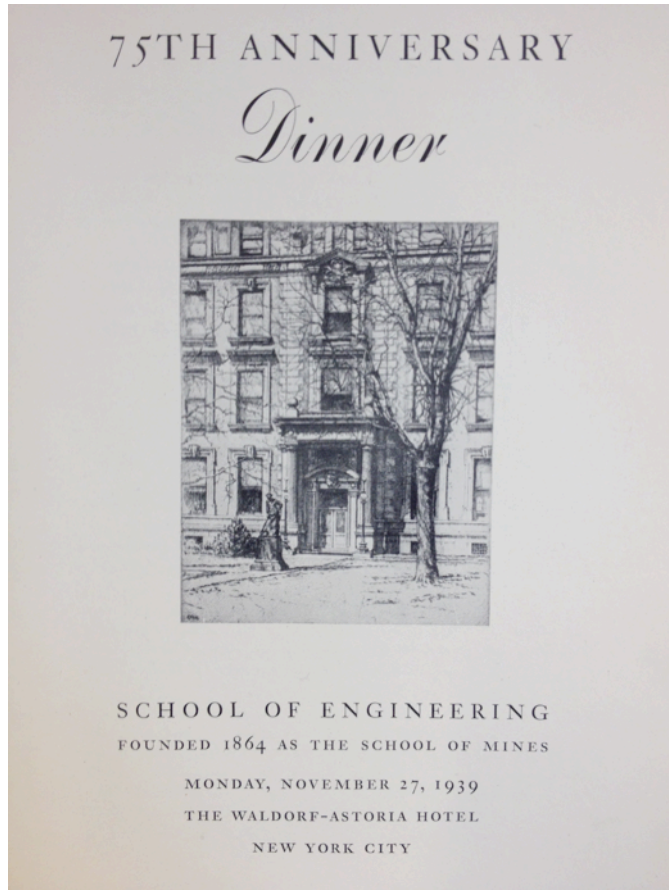
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- 1939 – Invitation to the SEAS 75<sup>th</sup> Anniversary Dinner.



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## The Eighth Decade: 1935-1944



UNVEILING OF A PLAQUE MARKING THE SITE  
OCCUPIED BY THE SCHOOL OF MINES  
OF COLUMBIA COLLEGE  
at the Southwest corner of Park Avenue and Fiftieth Street.

Presentation of the Plaque to Columbia University by OCTAVE B.  
HÉBERT, '88 MINES.

Unveiling of the Plaque by ARTHUR A. STOUGHTON, '88 ARCH.

Acceptance of the Plaque in the name of the University and  
presentation to Three Hundred Park Avenue Inc., owners of  
the site, by Dean JOSEPH WARREN BARKER of the School  
of Engineering.

Acceptance in the name of Three Hundred Park Avenue Inc.  
by J. H. HUSTIS, JR., President of the Corporation.

- 1939 – Unveiling of a commemoration plaque from the SEAS 75<sup>th</sup> Anniversary Program.



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# New York Moments

## The Eighth Decade: 1935-1944



- 1939-1940, New York World's Fair.



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## The Eighth Decade: 1935-1944

At Last—  
AN OUTDOOR PIPE  
that  
OPERATES  
PERFECTLY

\$5  
**Gale KAYWOODIE**

This is one you've just got to have—unless you're a bookish fellow given to staying indoors. The "watch-case" top on this pipe keeps the wind from teasing into the pipe-bowl and "emptying" it. Protects the briar (and that new tweed outfit of yours) from burning.

The slotted grill controls the draft perfectly, and slides back sideways for filling and emptying. The whole pipe is trim as a watch and tight as a clam—makes all other covered pipes look like the Gay Nineties. It's the smartest thing that's come through our doors in many years—you'll agree as soon as you see one. Shown above, No. 33.

**KAYWOODIE COMPANY**  
Rockefeller Center, New York and London

**GLENN MILLER**  
Season's Greatest Attraction  
COUNTY CENTER WHITE PLAINS  
Tomorrow Night  
Dancing 9-2 P.M.  
Admission \$1.10

- Ads in *The Spectator*, on November 10, 1939, during the SEAS 75<sup>th</sup> Anniversary Year, reflecting student life.

ONE WEEK BEGINNING TODAY

**APOLLO** | **"FATS" WALLER and Band**

Phone UN. 4-4490  
125th STREET  
Near 8th Ave.  
**HARLEM'S HIGH SPOT**

MON. NIGHT  
JITTERBUG  
CONTEST

WEDNESDAY  
AMATEUR  
BROADCAST

SATURDAY  
MIDNIGHT  
SHOW



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# New York Moments

## The Eighth Decade: 1935-1944



- Summer in the City, Coney Island:
  - Nathan's Hot Dog Stand, 1939 (below).
  - “Coney Island Beach” by Weegee, 1940 (left).



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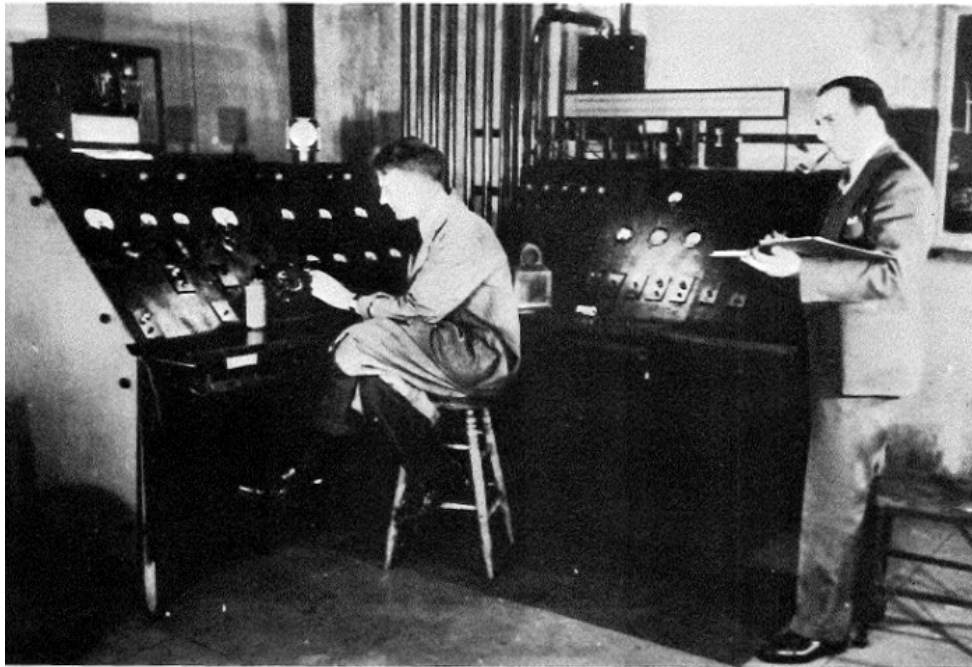
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# From the SEAS Time Capsules

## The Eighth Decade: 1935-1944

- 1939 – Neutron expert Prof. (and later Dean) John R. Dunning is on the first team to achieve managed nuclear fission in the United States and makes important advances in gaseous diffusion to separate uranium isotopes for the Manhattan Project.
- Later, the below is from the 1966 *Columbia Engineer* yearbook.



The engineer-physicist is clearly exemplified by Dr. John Dunning, Dean of the School of Engineering, who, as associate professor of physics, designed and built the historic cyclotron recently put on display at the Smithsonian Institution. The cyclotron verified that the rare isotope, Uranium 235, was the principal fissionable form of uranium, and, hence, introduced the nuclear age.

Dr. Dunning and G. Norris Glascoe (now assistant director of the Brookhaven National Laboratory) are shown at the control panel of the cyclotron when it was operated in the basement of Pupin.

# New York Moments

## The Eighth Decade: 1935-1944



- 1940 – The Empire State Building, along with another New York icon; the Horn and Hardart “Automat”, New York’s original restaurant chain, which first opened on July 2, 1912 and closed in 1991.



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# From the SEAS Time Capsules

## The Eighth Decade: 1935-1944

### Engineers Offered Plans For 'Accelerated Program'

#### Termed an Aid to National Defense

Engineering students at Columbia have received a statement outlining proposed plans designed to hasten the completion of their course of study.

Stating that the course must be compressed in order to meet the demand for engineering graduates in defense industries and the nation's armed forces, the letter asks the students to indicate approval or disapproval of three alternate proposals and whether "If offered, would you take such a program?" Similar questionnaires have been issued to engineering students throughout the country.

Acceptance of either of the plans would mean that the School of Engineering would operate eleven months of the year, graduating the present first year engineering class in March, 1942, with the B.S. degree.

#### To Receive B.S.

Second year pre-engineers, now Columbia College Class of '43, would graduate in September or October, 1942, and first year pre-engineers, now College Freshmen, would be graduated in June or July of 1943. Both classes would receive the B.S. degree.

The necessity for this move is attributed to the national defense program. The letter issued to engineering students states:

"Due to the National Emergency and its consequent extremely heavy demands upon defense production industries there has arisen an extremely heavy demand for engineering graduates. This demand will increase during 1942 and reach its probable peak in the spring of 1943. Coincident with this demand for engineering graduates there is a growing need for engineers and technicians in the armed forces."

- The Feb. 24, 1941 *Spectator* reports that Engineering is preparing for an accelerated program, with classes for 11 months each year, because of expected defense industry and armed services needs for World War II.



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## The Eighth Decade: 1935-1944

### DEAN BARKER'S STATEMENT

#### *Allays Parental Anxieties About Student Health*

To the Editor:

My attention has been called to the fact that two or three students, who were present at the general assembly of engineering students on January 12th, appear to have misunderstood, or placed an erroneous construction upon, my remarks on that occasion.

In discussing the accelerated program adopted by the School of Engineering, I pointed out that this program would necessarily put an increased physical and mental strain on our students. I stressed the desirability, therefore, that each and every student should give special attention to the maintenance of his physical condition and that he should deliberately budget a certain amount of each day's time to physical exercise of the type best suited to keep him in good physical trim — that, in fact, he should make a determined attempt to improve his physical fitness for we, as a nation, were facing a supreme test in which each citizen, and especially those who, like engineers, are called upon for special and vital service, must make a special effort to achieve the maximum of mental and physical efficiency. A sound mind can be kept sound and function most effectively if we maintain a sound and healthy body.

I was further urged to emphasize this, to my mind, basic need by the fact that the reports from Army and Navy induction and recruiting centers show that a shockingly large proportion of those called or voluntarily entering national service cannot meet the minimum physical requirements of these services. Furthermore, even many of those accepted by the examiners, while they have no major physical handicaps, are in poor physical condition—they are physically "soft" and unable, without long training, to undertake the strenuous and exacting duties which this emergency has placed upon us.

It was with these thoughts in mind that I stated that the School of Engineering would give particular attention to this problem and urged that all students give it their personal attention. I did not then and do not now think that the accelerated program will ruin the health of any of our students. I did say that this world-wide war placed responsibilities on all of us to put forward our best efforts for our country and that mental alertness and efficiency went hand in hand with good health and physical well-being. Only the best will meet the needs of the crisis we now face and its early achievement will save thousands and thousands of lives which may otherwise be sacrificed.

This letter has been prompted by an anonymous communication from some parents which, while evidently sincere, is clearly based on a misunderstanding. Columbia men, faculty and students, are ready to do their duty and we need the encouragement and support of our folks at home if we are to make our best effort. I ask, therefore, that the student or students who gave their parents the erroneous impression of my talk will carry this letter home to the "Worried Mothers." For all our students I again urge definite and careful attention to physical as well as mental health.

JOSEPH W. BARKER  
Dean, School of Engineering

- As reported by the Feb. 11, 1942 *Spectator*, Dean Barker assures parents that the wartime accelerated academic program will not unduly strain students.

### Parents Reassured by Dean of Engineering

Parental anxiety about the physical strain of the accelerated program, as indicated in letters to Engineering Dean Joseph W. Barker, will be allayed by a statement to be found on Page 2.

Dean Barker discloses the anxiety resulted from a misunderstanding of his January 12 speech.



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# From the SEAS Time Capsules

## The Eighth Decade: 1935-1944

### Engineering Professors Are Assigned to War Projects

Some Here Part-time, Some on Full Leave  
As Scientists Contribute to War Effort

*(This is the third in a series of articles on faculty losses to the University because of the war.)*

By ELLIOTT M. SANGER, JR.

Hardest hit by losses to war work are Columbia's faculties of the physical sciences—Engineering, Mines, Chemistry and Physics—whose members, to a large extent, are engaged in governmental work either at the University or at posts assigned to them.

Accurate compilation of losses is difficult because of different status of those participating in the war effort. Some are on full leave, others are dividing their time between Columbia and other posts, while a third group continues its teaching duties while working on government assignments.

Representative of the extent to which Columbia instructors are contributing their services are

- The March 6, 1942 *Spectator* reports on war projects by the faculty during WWII.
- Many students also serve.



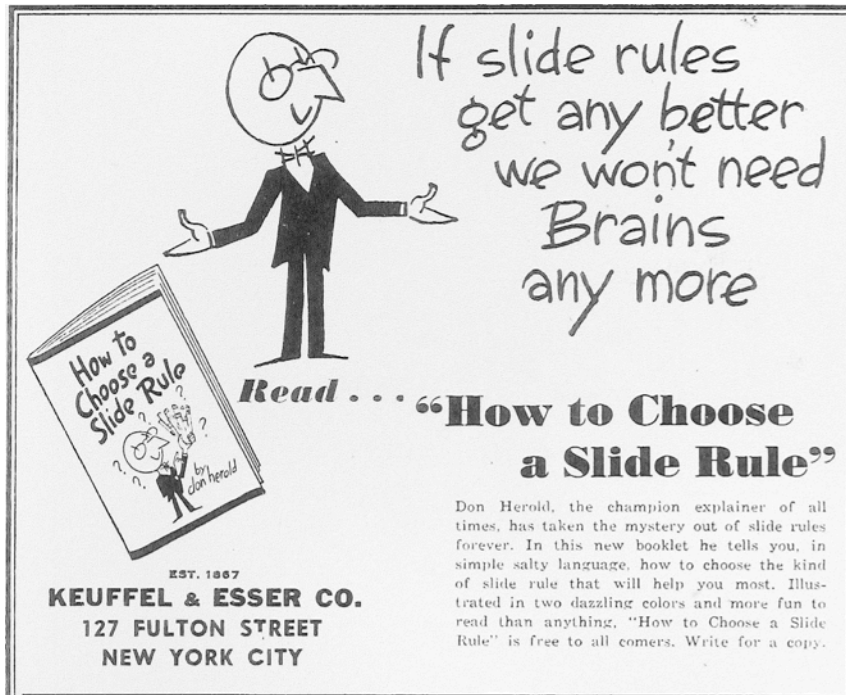
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## The Eighth Decade: 1935-1944



If slide rules  
get any better  
we won't need  
Brains  
any more

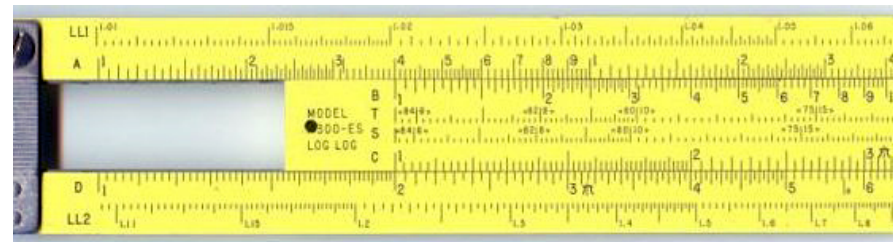
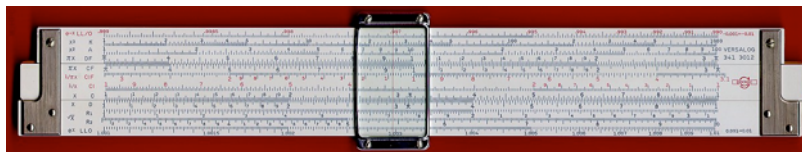
Read... **"How to Choose  
a Slide Rule"**

EST. 1887  
**KEUFFEL & ESSER CO.**  
127 FULTON STREET  
NEW YORK CITY

Don Herold, the champion explainer of all times, has taken the mystery out of slide rules forever. In this new booklet he tells you, in simple salty language, how to choose the kind of slide rule that will help you most. Illustrated in two dazzling colors and more fun to read than anything, "How to Choose a Slide Rule" is free to all comers. Write for a copy.

- Slide rules\* being advertised for purchase in the days before calculators.
  - Ad from the 1942 *Columbia Engineer* yearbook.

\* Slide rules operated on the principle that multiplication and division involve the addition and subtraction of logarithms (base 10). Slide rules shown are from after 1942.



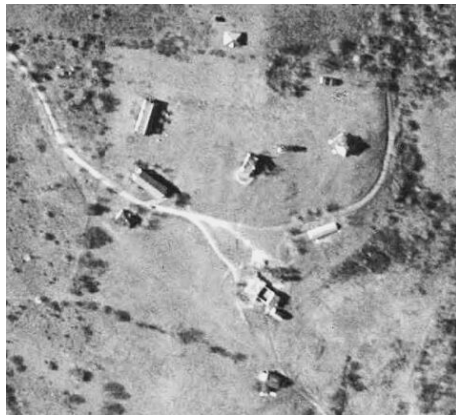
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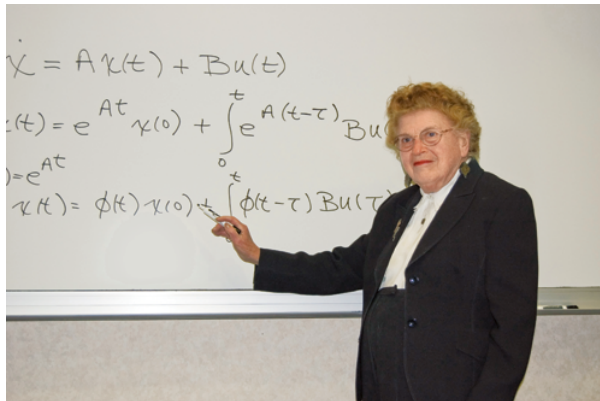


- At Camp Columbia, the existing wooden water tower is replaced with a stone tower in 1942 as a gift from the Class of 1906.
- The aerial map of Camp Columbia is from 1934.
- Camp Columbia started in Connecticut in 1885 to instruct students on surveying during the summer. After declining interest, it closed in 1966.



# From the SEAS Time Capsules

## The Eighth Decade: 1935-1944



- 1943 – Gloria Brooks Reinish, is the first women admitted to Columbia SEAS.
  - 17-year old transfer student from Cooper Union, graduated with BS in EE in 1945.
  - Worked for Bell Labs, Sperry Gyroscope, received doctorate in bioengineering (from SEAS, EngScD 1974), and became a professor and department chair at Fairleigh Dickinson University.
  - Also shown in 2010.



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# From the SEAS Time Capsules

## The Eighth Decade: 1935-1944

### Engineers Make Post-War Plan

The post-war program of the School of Engineering of Columbia University is now being planned by faculty members, according to Professor James Kip Finch, acting dean of the School.

Changes in the pre-war engineering content of undergraduate studies, further development of graduate instruction and research, and temporary programs of undergraduate courses for returning service men and industrial workers will be given special consideration, Professor Finch said.

“Although we have spent the last six months in making fundamental shifts, changes and adjustments in our engineering curricula to accommodate the Navy V-12 trainees, recent developments indicate that the war may end sooner than we expect, and it seems necessary for us to give thought almost immediately to the problems which the coming victory will pose in the adjustment of our programs of studies,” Professor Finch declared.

- The August 27, 1943 *Spectator* reports on Engineering plans after WWII.
  - The war continues for two more years.



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# New York Moments

## The Eighth Decade: 1935-1944



- Leonard Bernstein, New York Philharmonic Assistant Conductor, makes his major conducting debut on November 14, 1943 in Carnegie Hall.
  - He becomes the Music Director of the New York City Symphony Orchestra from 1945 to 1947 (shown, left in 1945).
  - He was the Music Director of the New York Philharmonic from 1958 to 1969.
- His legendary career also included:
  - Presenting 53 Young People's Concerts with the Philharmonic from 1958 to 1972 (below).
  - Writing the music for *West Side Story*.

