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Miss B. H. B.

31891



THE S. U. I. WIRELESS STATION 9. Y. A.

The photograph used for the heading shows one end of the aerial of the University wireless station attached to the dome of the Old Capitol Building. The other end is supported by a steel pole on the roof of the Hall of Physics. The station proper is located on the first floor of the Hall of Physics.

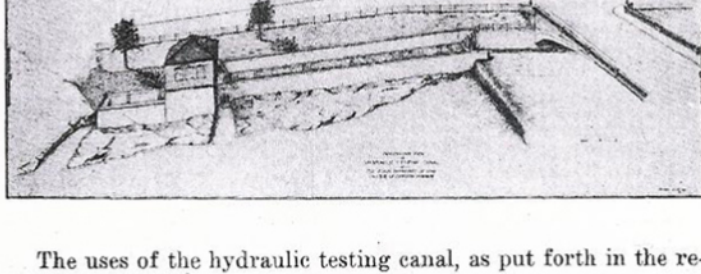
The transmitting set is a two K. W. Clapp-Eastham, operating on a 750 meter wave length. The receiving equipment consists of a navy receiving transformer, oscillating audion, necessary oscillating transformer and loading coils for Armstrong connections. The antennae is the vertical T-type, containing seven wires spaced 18 inches apart, one hundred feet high, and one hundred and thirty feet long.

The station is used for experimental work for the purpose of developing more efficient radio transmission and apparatus. During the past winter this station was heard over a radius of one thousand miles and carried on daily conversation over a distance of five hundred miles. The operators—the seniors in

electrical engineering—have intercepted messages from a great many land engineering of this country; from many ships along the Atlantic, Pacific, and Gulf coasts; and even from Colon, Panama, a distance of 2350 miles.

THE HYDRAULIC TESTING CANAL

At the time the University dam across the Iowa River was constructed in 1906 an opening 10 feet wide was provided at its west end to be used at some future day for admitting water to a hydraulic testing canal. In June 1915 plans were drawn and an estimate of cost made for such a canal by the Department of Mechanics and Hydraulics. The accompanying cut is from a perspective drawing included in these plans. The project consists of a straight canal 130 feet long, an experimental power house 20 feet square, and a tail race 35 feet long.



The uses of the hydraulic testing canal, as put forth in the report prepared by Prof. John H. Dunlap of the Department of Mechanics and Hydraulics would be:

1. Investigation of the laws of flow over weirs.
2. Researches in the flow over dams of various cross sections.
3. Testing hydraulic turbines.
4. Experiments with Herschel's fall increaser.
5. Rating of current meters and Pitot tubes.
6. Diaphragm measurements of water flow.
7. Investigations of friction losses in flow through pipes.