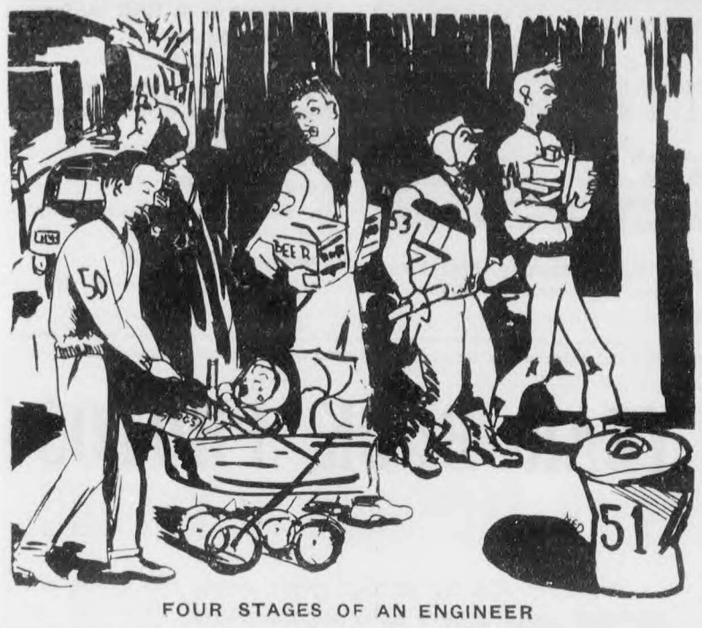
ne Building Toured y Radio Club

day, Feb. 1—The U.N.B. b met at the office of the swick Telephone Co. on et and were met by Mr. illiams who conducted a tour of the building, nem how the exchange in n is run. Some of the lows were taken upstairs y were allowed to watch stance operators at their Williams and two assis- ined the workings of the dialing system and also e group a teletype mach- ration. They were then he room containing the power supplies and eq- used in producing the nd the busy signals etc. ions of this equipment explained to the inter- ps.

the groups arrived in g room an were shown various instruments are eep the communication rking condition. estions were answered by the group's hosts.



FOUR STAGES OF AN ENGINEER

Television for Canada in 1951 . . .

by Arnold Duke

Television broadcasting in Canada will become a reality in the fall of 1951 with the setting up of three transmitters by the Canadian Broadcasting Corporation. Toronto and Montreal will be the first cities to be served by Canadian Television. Toronto will have one English vidio outlet while Montreal will have one English, and one French.

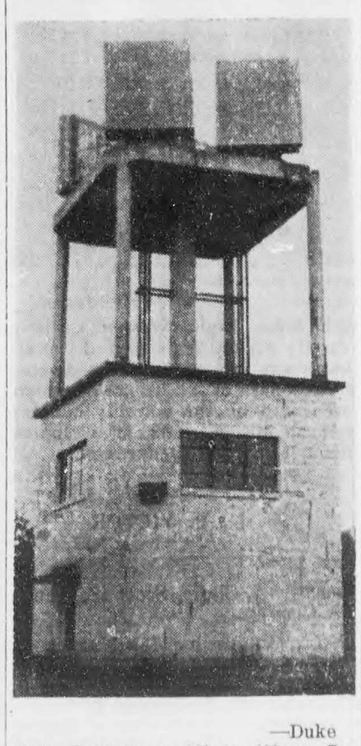
The standard to be adopted will be American. This will mean the picture image will consist of 525 horizontal lines scanned 30 times a second. A few television receivers have already been made in Canada to these standards. These are used in southern Ontario and British Columbia, areas now covered by American television stations. At present twelve channels are available for television, and are numbered 2 to 13. Allocation of these channels to Canadian cities within 250 miles of the U. S. border has already been made through an agreement between the American Federal Communications Commission and the Canadian Department of Transport. The channels alloted follow a pattern similar to the A. M. broadcast channels now in operation. In New Brunswick, Fredericton, Moncton, Sackville, Campbellton and Edmundston were given one channel each while Saint John received two.

Television Broadsacting Techniques are very similar to those developed in twenty years of audio broadcasting. Radio broadcasts may originate from four sources, "live" in the studio, recorded, remote control, or from a network. In television the same sources are available. In the recorded group the medium is different, motion picture film and slides replaced the transcription disc and magnetic tape. In remote and network broadcasting coaxial cable and the micro wave beam replace the telephone line in carrying the programme from point to point. Included in this article is a photograph of a Bell Telephone Company micro wave repeater stations in the Boston-New York circuit. Stations of this type are located about every 35 miles and carry television programmes from one city to the other where they are broadcast through regular television stations.

—Duke
Television News Broadcast as received from WBZ-TV Boston Channel 4 and originating in Washington, D. C.

In the United States eighty-four television stations are now in operation, thirty-three more have construction permits. A television network now operates along the Atlantic coast from Boston south to Atlanta, and from New York west to Chicago. A second network operates along the west coast. At present programmes on one network have to be recorded to be used on the other. It is hoped that the two can soon be linked, to form one coast to coast network.

The first network in Canada will probably join the stations in Toronto and Montreal. A second link from Toronto to Buffalo would join it to the American Network; however, most of the programmes will be of Canadian origin. Television on any major scale in Canada will be impossible for some time as it is at present economically unsound to place transmitters in areas serving less than 100,000 people in its 65 mile radius. It would probably cost Canada her total annual budget to build a vidio network equal to her present radio networks.



—Duke
Bell Telephone Micro Wave Repeater Station near Hartford Conn.

ENGINEERING AS APPLIED

(continued from page three)

at high speeds, a system of rope carriers has been devised, which is known at the Sheehan rope carrier. Two ropes run parallel to each other, and pinch together, thus holding the wet sheet, and carrying it under one dryer, around the bottom of it, up between it and the next dryer, up over the top of the top dryer, down again, and so on, until the paper has passed over every dryer. In this way different sections of the sheet come into contact with different dryers at different times, so that water is evaporated uniformly from the sheet.

The sheet then passes through calender stacks, which are a series of smooth iron rolls, mounted on top of each other. These revolve and press and iron out the dried paper until a smooth surface is obtained. To help get a good finish, the paper is dampened slightly before calendering.

The paper has now been made.

It is wound on large iron cores to diameters up to forty inches by means of a drum winder, which simply revolves the core as the paper comes out of the calender stack, and rolls it up on the core into a large roll called a reel. The reel is transferred by means of a hoist to a stand behind another winder machine: here the paper on the reel is unwound, and passed through a winder machine, to be slit into any width desired, and again wound on paper cores to whatever diameter is desired. A roll of paper sixty-nine inches wide, will contain about 8,760 yards of paper if the diameter is thirty inches, and will weigh 1,625 pounds; the weight of paper is thirty-two pounds for 500 sheets twenty-four by thirty-six inches in size.

These rolls now go through a process called finishing. In this process the roll of paper is numbered, and then wrapped with the heavy cardboard paper made from the rejected pulp, mentioned previously. Three inch wooden plugs are put in the ends of the paper cores, and circular pieces of the same cardboard wrapper are put on the ends; the whole is wrapped up and pasted.

Each roll is weighed, the weight of the wrapper used is deducted, and the net weight of the roll stencilled on labels, which are pasted on the wrapped roll. The name of the customer is also stencilled on, and the paper is ready to be shipped, either by railfoad, or by steamship, to wherever the customer's newspaper is located.

From forest to printing press, the manufacture of newsprint is made possible through the efforts of engineers, and application of engineering principles.

Model United Nations

A meeting of representatives from various campus societies was held on Tuesday night Feb. 7 for the purpose of forming a model United Nations. Stig Harvir was elected President of the committee and Derek Wiggs was elected secretary.

It was decided seeing that the idea was adopted so late in the year that instead of a model assembly which would be too large an undertaking on such short notice that instead a committee on economic and social affairs would be formed. So far cooperation has been received from several societys and those who have not sent representatives are asked to do so. A meeting will be held in the near future.