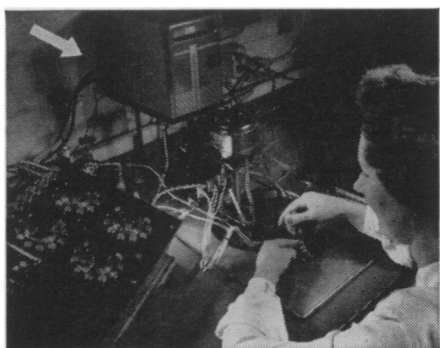




Pumpkins

► WHEN the first white men arrived in America, they found many things they had never seen before, including red Indians, yellow corn and orange pumpkins. Of the three the only one they treated shabbily was the first. In the lean and hungry early years of colonization, the first settlers, for preservation's sake, quickly learned to cultivate pumpkin and corn in the Indian manner.

Without benefit of county agents to tell



"E" Galvanometer Saves Space And Time In Lab

Calibrating reference junction coils is one of the many ways in which we use the Type E Galvanometer in our own plant. Formerly requiring a wall-type galvanometer, this routine operation is now carried out more conveniently, in less space, with the Type E.

Compact and self-contained, Type E is the "just right" answer—in sensitivity and speed—for a variety of null measurements.

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them about strip cropping or of the agronomic virtues of crop rotation, the Indians had developed a system of planting corn in rows. Between the rows they grew pumpkins. This practice is still followed.

Pumpkins were known in the Old World. Both Europe and Asia cultivated types of garden squash. The name pumpkin itself, with which the strange squat spherical fruit was dubbed, had been applied to a type of European yellow squash long before Columbus. It is believed originally to have been a Greek word meaning "sun-warmed" or "sun-ripened," which then went through many linguistic changes to become finally the English word "pumpkin."

Pumpkins and squashes are very closely related, both being members of the gourd family. The word squash is adapted from an Indian word. Some of the more familiar types are crookneck squash, scallop or acorn squash, and Hubbard squash.

However this is all academic. Comes the fall of the year and all botanical distinc-

tions vanish. From Hallowe'en to Thanksgiving there is but one gourd, and pumpkin is its prophet. Nothing is more American than to place a tallow candle in a hollow pumpkin on the hallowed eve. The familiar cut-out mask flickers with a benign grotesquerie. And if the pumpkin be real and not store-bought cardboard, and if mother still practices the arts her mother taught her, from the kitchen comes the incomparable fragrance of fresh-baked pumpkin pie.

Outside, the man of the house, paint brush in hand, regards his front gate with satisfaction. If the hobgoblins who last year put his gate on the garage roof try it again this year, they will get paint on their hands for their trouble. He turns and walks to the house. He sees the lighted pumpkin in the window and he smells the unmistakable aroma from the kitchen. He quickens his step, smiling to himself. And the flickering pumpkin-face seems to be smiling too.

Science News Letter, October 29, 1949

ENGINEERING

TV Noise Is Man-Made

► THE "noise" that interferes with the performance of television reception is largely "man-made" and most of it can be eliminated, the American Institute of Electrical Engineers was told in Cincinnati by George D. Hulst, of Allen B. DuMont Laboratories, Passaic, N. J.

These noises come from automobile ignition, gas-filled illumination sources, motor and generator commutators, gaseous rectifiers, elevator relays and other electrical installations. These are impulse noises of short duration.

Less common is noise of long duration, including those that originate at a fixed industrial location, including automatic furnaces and refrigerators. Then there is the continuous or single frequency noise of diathermy machines, "ham" transmitters and home-made television sets. To these may be added the random or thermal noise which originates in vacuum tube apparatus, such as industrial radio frequency heating units or super-regenerative radio receivers.

The noise is not picked up entirely in the antenna, Mr. Hulst stated. It may be picked up in lead wires, the antenna post, the signal frequency circuits, the intermediate frequency amplifiers, and in some cases even by the video amplifier.

Pick-up of interfering signals can be avoided if the lead-in wire is coaxial rather than being unshielded open wires. Antenna connector posts also can be coaxial, the outer conductor being grounded to the chassis and the inner conductor having a high frequency choke connected directly to the chassis. Pick-up within the chassis can be helped considerably by the use of well-known electrostatic shielding in the receiver generally.

Much in television reception depends upon the installation man. He must orient the antenna in such a way as to minimize the noise of long duration. His installations and tests should be made when nearby factories are in operation, particularly those that use equipment that cause interference.

Science News Letter, October 29, 1949

METALLURGY

New Corrosion Protection Is Patented

► AN ALUMINUM-ON-STEEL combination, with the light metal or its alloys serving as a protective coating against corrosion, gives promise of wide usage with a newly patented bonding process on which the government has issued patent 2,484,118 to Richard S. Reynolds of Richmond, Va.

This new method of coating aluminum on steel makes a permanent bond, it is claimed, by use of a fine iron coating on the steel deposited electrolytically as a bonding agent. Older methods of applying aluminum to steel by dipping the steel in molten aluminum obtained an unsatisfactory bond.

In this new method, which has been assigned to the Reynolds Metals Company of Richmond, steel strip from a roll is passed in a continuous process through a cleansing bath, the electrolytic bath to receive the iron coating, a furnace to heat it to about 850 degrees Fahrenheit, then between two strips of aluminum foil between high-pressure rollers where the bonding is effected. The plated steel can then be further rolled to reduce its thickness.

Science News Letter, October 29, 1949