tissue in the slow hanging and ripening process which makes meat tender.

However, the high humidity and temperature also promote bacterial growth which normally would make the meat spoil before it became ripe. To cut down this action by microorganisms that cause decay, special ultraviolet lamps are used whose powerful, invisible rays kill these organisms. By the combination, therefore, quick ripening is obtained without spoiling.

The new development is most important to the meat packing industry, which now has large investments in buildings used for storing and slow ripening the better grades of meat. The process is so quick that there is no waste in the cut of beef as there is in hanging, where it is necessary to remove completely the final discolored outer layers and use only the ripened "heart." The use of high humidity saves loss of weight in the meat due to its loss of water during the customary ripening stage.

The new advance was made possible by joint research on the part of scientists of the Kroger Food Foundation, the Westinghouse Research Laboratories and Mellon Institute. Better meat for lower prices is the promise to the consumer.

Science News Letter, April 1, 1939

AERONAUTICS

New Air Corps Bombers Rated At Near 400 M.P.H.

THREE new attack bombers now being started through exhaustive U. S. Army Air Corps tests are reported unofficially to have top speeds close to 400 miles an hour, higher than is claimed for any other bombardment aircraft in the world.

Small ships with big engines all, they are the deadliest aerial weapons ever placed in the Air Corps' hands. Their mission is attacking ground troops, as well as general bombardment duties near front lines. Two of the designs have high wings so that the machine gunners can see better the troops they are strafing.

They are the first American bombers with smooth-as-satin outside finish. All rivets are countersunk, to add to the planes' speed by cutting drag. All three, submitted by the Stearman Aircraft Company, the Glenn L. Martin Company and North American Aviation, Inc., for competitive testing by the Air Corps, have been designed with high speed, quantity production in mind.

Science News Letter, April 1, 1939

PHYSICS

Mechanical Model Shows How Electric Waves "Look"

A MECHANICAL model which helps you to visualize unseeable electrical waves has been invented by C. F. Wagner of the Westinghouse Electric and Manufacturing Company. With the device a surge of electrical current lasting only one ten-thousandth of a second can be prolonged to five or ten seconds, time enough for engineers to study the wave pattern.

One major usefulness of the machine is to study what happens in a transmission line when a lightning bolt strikes it. It is possible to show how a lightning arrester on such a line acts as "a dam" to hold back the abnormal voltage and permit only a safe amount to continue through the wires.

The working model is made possible because there is found to be a close, analogy between inductance, capitance and resistance in an electrical system and mass, spring resilience and damping elements in a mechanical model.

Applying this knowledge, Mr. Wagner has produced what looks like a long xylophone, consisting of 56 long narrow aluminum arms mounted at their center of gravity on hardened steel bearings. A flat spring is mounted rigidly to each arm and the free end of the arm is attached to the adjacent arm. When the first arm is oscillated, it transmits its motion to the next arm, and so on, and produces effectively a wave type of transmission.

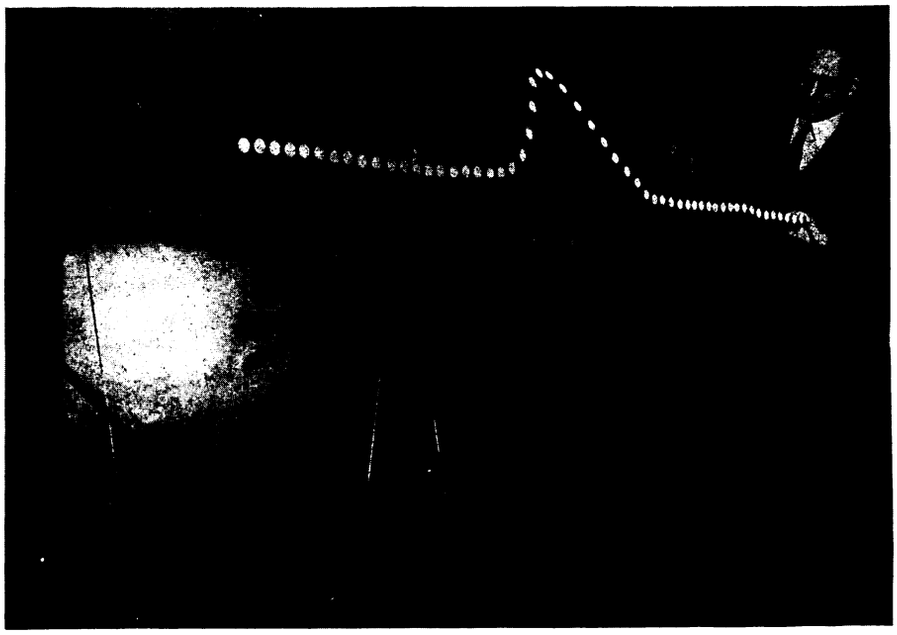
Science News Letter, April 1, 1939

ENGINEERING

Undertake Standardization Of Airplane and Motor Parts

PRINCIPAL aeronautical organizations have taken steps at a meeting to standardize airplane parts commonly used throughout the world, the American Standards Association announced. The work will be carried out by the International Standards Association. Plane and engine parts and fuel specifications will be chiefly affected.

Science News Letter, April 1, 1939



THEY LOOK LIKE THIS

This mechanical model helps visualize transmission of electrical waves. C. F. Wagner of the Westinghouse Company demonstrates his device that looks like a xylophone but which gives a picture pattern of wave transmission. Engineers are able to demonstrate little-understood electrical properties of transmission lines with the device, including the action of lightning strikes on the line.