

The Knowledge Bank at The Ohio State University

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YOU have probably noticed the number of really substantial people who favor brick pavements.

Shrewd observers, these people have watched the kind of service that various types of pavement have given their communities. As they speak, they usually have in mind a brick pavement fronting some property which they own—a brick pavement that has given trouble-free service for thirty years or more.

Actual figures on maintenance of various pavement types show the economy of brick construction.

The reason for this habitually low maintenance cost is that brick protects the base from weather destruction. Non-absorbent and sealed watertight with filler, the brick-surfaced base can perform its load-bearing function without impairment.

Brick pavements are now built so as to be free of all excess filler when opened to the traffic. This gives a safe, smooth-riding road that is handsome in appearance. It is, of course, the cheapest pavement per-year-of-service that can be built.

PAVE AND RESURFACE WITH BRICK

Ohio Paving Brick Association
COLUMBUS, OHIO



**LIKE PUTTING YOUR-
SELF ON WHEELS
— — DRINK MILK**

The Mt. Vernon Bridge Company

Designers, Fabricators and Erectors of

STRUCTURAL STEEL

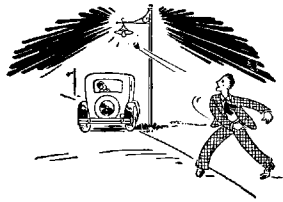
of

EVERY DESCRIPTION

Blast Furnaces
Skip Bridges
Ore and Coke Bins
Railway and Highway Bridges
Viaducts and Trestles
Mills and Factory Buildings

M T . V E R N O N - - O H I O

G-E *Campus News*



STONE-THROWING ROMEOS

The engineers of the General Electric Company have been asked to solve some unusual problems, but never before have they had to work against Cupid. This is how it came about: Some of the swains who did their courting in parked cars along certain lighted roads in New England found that the lamps crimped their style. With simple but destructive logic they decided to extinguish the lamps with stones. Their aim was so good that repairmen of the utility which serviced the lights could hardly keep up with their depredations. Finally, G-E illuminating engineers were called in to design a fixture to foil the stone-throwing Romeos. These engineers produced a cast-aluminum guard, which looks very much like a baseball catcher's mask. It protects the lamp, and at the same time helps to concentrate light on the roadway.



HURRY! HURRY!

A flood had crippled three important electric motors in the refinery of a large oil company on the island of Aruba, 50 miles north of the coast of Venezuela. The plant had to be shut down until new coils could be installed. Losses caused by the shut-down ran into thousands of dollars a day. An order for the coils and word of the refinery's predicament reached General Electric in Schenectady, N. Y., on a Sunday morning. Work began immediately, and by dint of night shifts and a great concentration of efforts, the two-and-one-half-week job was completed in three days. The 808-pound shipment of coils, conveniently packed in small cartons, was flown in a chartered plane from Schenectady to the Newark airport, where it was transferred to an Eastern Air Lines plane bound for Miami. On

Wednesday morning the cartons were transferred to a Pan-American Airways ship at Miami for the hop across the Caribbean to Kingston, Jamaica. From there, they were flown directly to Aruba in a specially chartered plane. They arrived Saturday morning, just six days after the order had been received by General Electric.

J. A. H. Torry, Union College, '11, and G. H. Magner, Acadia College, Nova Scotia, '09, of the International General Electric Company, Inc., made the arrangements for filling the order.



FAT SPARKS

The artificial lightning boys have beaten natural lightning in one regard, at any rate. Engineers in the General Electric high-voltage laboratory have produced discharges of a quarter of a million amperes, which is greater than the current of any direct lightning stroke yet recorded. This current is discharged at a pressure of 150,000 volts.

Just as natural lightning, with amperage almost as great, destroys that which it strikes, so does the laboratory discharge; and just as natural lightning is accompanied by thunder, the laboratory bolts have their ear-splitting crashes. A copper wire a tenth of an inch in diameter is completely vaporized. A similar piece of iron wire is "exploded," the remaining ends continuing white hot for several seconds. A section of reinforced concrete is broken into bits. The handle of a silver-plated ice cream spoon vanishes with a shower of sparks, leaving behind only the bowl discolored by the heat.

These engineers were the first to produce 10,000,000-volt artificial lightning discharges, and they are continuing their studies through these high-current discharges, in order to find better means of protecting electric distribution systems. K. B. McEachron, Ohio Northern, '13, Purdue, '20, M.S., is director of the laboratory, and associated with him in these tests are: W. L. Lloyd, Rennselaer Polytechnic Institute, '18; J. L. Thomason, U. of Idaho, '29; G. D. Harding, U. of Arizona, '29; and J. R. Sutherland, Yale, '29.

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GENERAL  **ELECTRIC**