spicuously when the unnoticed flowers of the ragweed are starting their annual warfare against helpless human nostrils, has had to take the blame for crimes it never committed and could not possibly commit. The goldenrod has been long and unjustly accused, and even the repeated vindications given it by physicians and botanists have not served to clear its good name in the public mind

It is not to the point that some hay-fever sufferers aver, "But I start sneezing if I only so much as see a bunch of goldenrod." That is just it. Most cases of that sort are started by just seeing the suspected plant: the sneezes are psychological sneezes. The patient got started by ragweed or some other real troublemaker, mentally associated goldenrod with his trouble, and now he can get a grand sneezing spell just by looking at it and feeling sorry for his poor nose.

This is not saying that goldenrod does not produce pollen. It makes lots of pollen. But goldenrod pollen is the heavy grained, sticky variety of pollen produced by plants that depend primarily on insects to carry it about.

The bright color of the masses of goldenrod bloom is a further alibi; the yellow lure hung out for insects is itself evidence that the plant does not depend on broadcast sowing on the wind to get its fertilizing dust transferred.

Science News Letter, August 15, 1931

ENGINEERING

## Novel Timber Bridge Replaces Sunken Road

TIMBERS placed atop untreated pine piles saved the day along a two and a half mile stretch of swampy North Carolina land where the concrete road had sunk so far as to be impassable. The novel timber bridging was constructed directly over the old roadway, according to a report in the Engineering News-Record by W. L. Craven, bridge engineer of the North Carolina State Highway Commission.

Spaced ten feet apart, the piles were driven deep into the oozy mud in lines on both sides of the old road bed. Caps made of concrete encased the tops of the piles in order to provide a firm basis for the timber decking. A layer of asphaltic concrete covered this decking of the emergency road. While the piles were being driven it was still possible to leave a minimum of 13 feet of the old road open to traffic.

Science News Letter, August 15, 1931



MOSOHIPPUS COMES TO LIFE

Thirty million years ago three-toed horses roamed the Dakota Badlands. They were not the tall, man-carrying type but were headed in that direction. Charles A. Corwin, artist of the Field Museum of Natural History, painted the background of the above picture while Frederick Blaschke did the actual modeling of the equine group.

ENTOMOLOGY

## Grasshopper Inroads Become Severe Along Old World Front

HILE middle western farmers fight to stem the grasshopper advance, locust campaigns along the Old World front are rapidly gaining momentum. North Africa, Palestine, and other Mediterranean areas have been swept by the devouring insects, and European countries are threatened with an aerial invasion. With the insects swarming up from Guatemala and Nicaragua, locust inroads are being felt as well throughout Central America.

Cousin to the American hopper, but somewhat larger and more voracious, this Old World locust is laying waste to acreage in the millions, and, even before wing development, destroyed the entire corn crop of East Africa. Not only are grain fields and grass lands being stripped, but houses are entered and curtains and table linens attacked.

Natives of the provinces in East Africa have become organized in a union to combat the pest. Uniformity of control methods exists, but even then the struggle is against odds. These Old World locusts breed along mountain sides, high plateaus and other inaccessi-

ble areas, making it impossible to destroy the eggs they hatch. Wheat bran, the basis of the American insecticide, is not available. Spraying, digging ditches are employed to halt the pest, but in general the methods are less effective than those used in this country.

The full force of the locust plague on other continents is just beginning to be felt, according to communications received from abroad by the U. S. Bureau of Entomology in Washington. The delay, in Africa, of the heavy seasonal rains and the absence of the flocks of locust-eating storks have combined to make the pests extremely numerous.

One aspect of the war back in the United States deals with Iowa's resort to strategy. Farmers there plan to strike a death blow to the hoppers which will carry on the battle next spring.

Poison bran mash will be distributed during May and June, 1932, to kill the young grasshoppers as they emerge. This fall the fields will be ploughed carefully in order to crush the hopper eggs which are now being laid in the soil by thousands.

Science News Letter, August 15, 1931