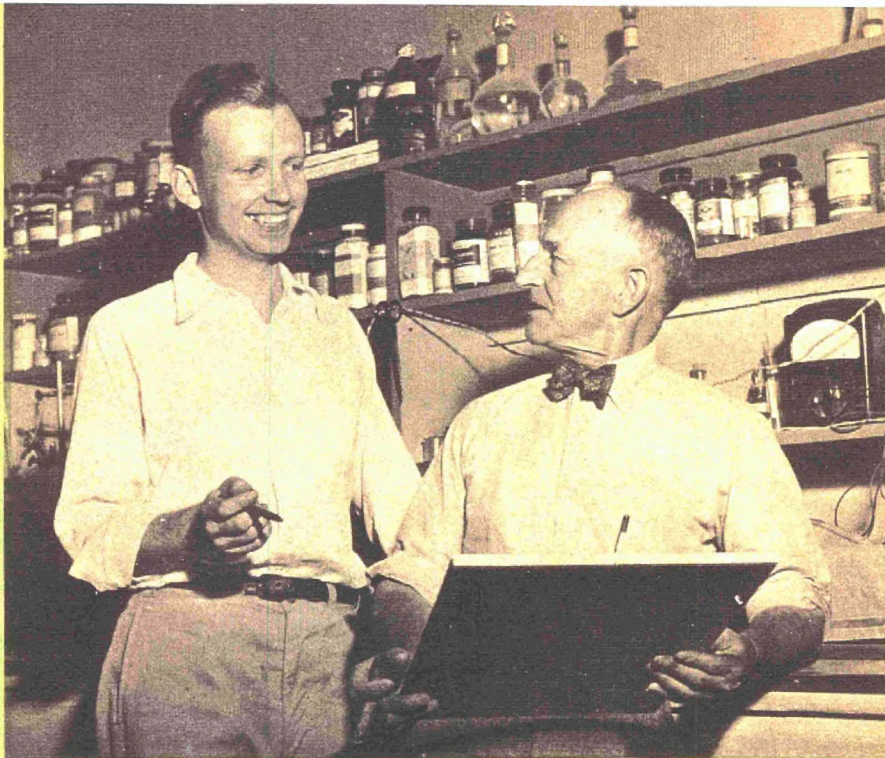


THEY KNOW THE ANSWERS

FOR SOME TIME NOW, THIS EARTH has been running a question and answer feature telling the "do's and don'ts" of using Kaiser Gypsum products. The men behind this feature, the men who have told you about lightweight aggregates in plaster, plastering over concrete, and so forth, are men who speak with impressive authority.

Wallace C. Riddell, a friendly, cigar chewing scientist, is widely known as "Mr. Gypsum." He's recognized as one of the discoverers of the company's great gypsum island, San Marcos. He's been associated with the gypsum industry since he graduated from the University of California in 1911.

George Kirk, who works with Riddell in Kaiser Gypsum's Redwood City laboratory, is an industrial chemistry graduate from Wesleyan University in Connecticut. Kirk and Riddell are particularly famed for their team-work in the water-repellent gypsum field.



"MR. GYPSUM" OF KAISER GYPSUM, Wallace Riddell, right, discusses some "do's and don'ts" of plastering with Chemist George Kirk. Riddell and Kirk periodically give THIS EARTH readers latest developments on use of Kaiser Gypsum products.

Q

plastering over concrete

Question:

What about plastering over the interior of concrete walls?

Answer:

It depends largely upon the surface texture of the concrete. Many concrete walls are poured using steel or plywood forms along with mechanical vibrations resulting in a very smooth and dense surface. Some concrete walls on the other hand have a relatively rough and porous surface.

For successful plastering over concrete, two methods are available. Bonding plaster may be applied to a roughened, clean con-

crete surface, or, regular hardwall plaster may be applied to metal lath (which is secured to the concrete wall).

Bonding plaster is especially designed to adhere to a properly prepared concrete surface. Since the thermal expansion of concrete is somewhat lower than that of hardwall plaster, the bonding plaster is designed to approximate the thermal expansion of the concrete, thus reducing the possibility of shear during temperature changes. Before plastering, the concrete surface must be cleaned of all oil from the forms, dust, etc., and be sufficiently rough to allow the crystalline structure of the plaster to interlace into the pores of the concrete to form a good bond. A smooth concrete wall can be roughened by bush hammering or by applying a dash coat of portland cement grout before plastering.

The total thickness of the bonding plaster on concrete walls should not exceed one-half inch and on ceilings the thickness should be between one-eighth and three-eighths inch.

Regular hardwall plaster can be used over metal lath when the concrete walls are left smooth. In some areas, concrete walls are coated on the interior with bituminous waterproofing compound. Such treatments kill the suction of the concrete and provide a surface to which gypsum plaster will apparently bond at first—but after a period of time the bituminous material is oxidized or otherwise altered and the plaster bond severely weakened. When such waterproofing compounds are used, it is strongly recommended that metal lath be attached as a plastering base for regular hardwall plaster.