tities of the various colored pigments necessary to produce the tones and tints commonly used in house painting.

The difficulties in the way of such an attempt do not seem to have occurred to the applicants, probably for the reason that it is not generally known that much—perhaps most—of the paint sold by dealers throughout the country is not what it purports to be. Pure paints, whether white or colored, are the exception and not the rule; that is the chance of getting pure paint—as compared with the chances of getting a highly adulterated material—is small; and this is not the worst. Much of the material sold under the various names, as umber, sienna, etc., are not in any sense what they purport to be, but wholly fictitious articles, without any of the properties of the genuine.

To illustrate the difficulties in the way of furnishing a set of formal rules whereby to instruct the uninitiated in the art of combining colors, let a case be supposed. It is easy to say that one pound or two pounds of raw Turkey umber, with one hundred pounds of pure white lead or zinc, will produce a tone of pure drab such as will be suitable for coloring the exterior surface of a house. Now, suppose, instead of both articles being pure and genuine, the lead or zinc to be so much cheapened by adulterating materials that the tinting power of the same is only one-quarter that of *pure* white lead or zinc. To mix with this a pound or two pounds of pure umber would give a shade four times darker than is wanted; or, suppose the lead to be pure, and the coloring material to be either a wholly fictitious article, or to be so much reduced as to have lost almost its coloring property. In the one case a dirty gray or brown would be the result; and in the other, almost no effect would be shown by mixing the same with one hundred pounds of the white. In any event the failure would be attributed, not to the fictitious materials, but to the author of the rule; and on his devoted head would fall the blame.