United States upland varieties, because a few of our upland cottons have the red spots at the base of the petals. The argument is far from conclusive, for red spots occur in many widely different types, and are probably an ancestral character of the genus.

The seeds of this wild Jamaica cotton show a very interesting diversity. In addition to the lint a majority of them have a dense adherent covering of brown fuzz, but on some the fuzz has a dull greenish tinge, while in still a third group most of the surface is smooth and naked, the hairy covering being limited to a tuft of brown fuzz at the base of the seed, and a tuft of lint at the apex. The presence of all three conditions in the same lot of seeds of this primitive wild type of cotton may help us to believe that similar diversities inside our upland varieties do not, of necessity, prove hybridization, but may represent a normal range of ancestral diversity in this group of plants.

The usual correlation of greater length and smaller quantity of lint on smooth seeds also holds good. The lint from the smooth seeds averages 31.3 millimeters, that of the fuzzy seeds 30 millimeters. The lint represents 16.03 per cent. of the total weight of the smooth seeds, and 18.27 per cent. of the fuzzy seeds. The smooth seeds weigh, without the lint, at the rate of 4.23 grams per hundred, the fuzzy at the rate of 4.97 grams. If the fuzz were removed and weighed with the lint, the proportion of fiber to seed would appear still higher with the fuzzy seeds. The slight increase of length of fiber on smooth seeds is accompanied by a disproportionate reduction of the quantity of fiber.

O. F. Cook

THE CORROSION OF IRON

To the Editor of Science: In a recent publication under date of May 10, 1907,[1] entitled "The Corrosion of Iron," the writer discusses the possibility of using certain inhibitors in the priming coats of paints and other protective coverings. The suggestion was publicly made that slightly soluble chromates should be theoretically the best protectives to apply to iron and steel surfaces. Numerous chrome pigments have been tested by the writer in reference to their inhibition value, the work having been done in large part previous to the publication of the bulletin above cited. Owing to included impurities, many of the commercial chrome pigments have been found to stimulate rather than inhibit corrosion, and the use of these for such purposes should be carefully guarded against. It has been found, however, that zinc chromate and a pigment made by precipitating barium and calcium chromates in molecular proportions give excellent results in the absence of impurities, such as sulphates, chlorides, etc. Prussian blue has also proved itself among the best of the rust inhibitors, so that excellent formulæ can be devised for good greens, using the above pigments with small amounts of pure calcic carbonate, and magnesium silicates, etc. Certain of the basic orange chromates also give good results.

It has been reported that patents have recently been applied for on a combination of zinc chromate with linseed oil as an inhibitive coating for iron and steel. The details of the claims can not yet be known, but in view of the general publication of the writer's results, it does not seem that the grant of such a patent would be justified. It is the policy of this department to give out the information it obtains for the free use of every one in the country, and particularly to safeguard the interests of the farmers. It would be a misfortune, in case these inhibitive formulæ prove themselves of high protective value, that their general use should be tied up by individual patent claims.

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[1] Bulletin No. 30, Office of Public Roads, U. S. Department of Agriculture.

THE DISCOVERY OF THE SATELLITES OF MARS

To the Editor of Science: In its issue of November 26, 1907, the Boston *Evening Transcript* published an article on the late Professor Asaph Hall, U. S. Navy, by John Ritchie. This paper contained the following