so many newspaper remedies published. Many of them have their good points, but the majority are worthless. In fact, rather than put faith in half of those which have been published, it were better to rely on the recipe which T. A. Janvier gives (in his charming article on "Mexican Superstitions and Folk-lore," published in a recent number of Scribner's Magazine) as current among the Mexicans:

"*To Get Rid of Cockroaches.*—Catch three and put them in a bottle, and so carry them to where two roads cross. Here hold the bottle upside down, and as they fall out repeat aloud three *credos*. Then all the cockroaches in the house from which those three came will go away."

A NOTE ON LOXIA CURVIROSTRA. By W. S. BLATCHLEY.

ON A SIMPLE AIR THERMOMETER FOR USE IN DETERMINING HIGH TEMPERATURES. By W. A. NOYES.

[ABSTRACT.]

The thermometer consists of a bulb of hard glass having a capacity of about 20 cc. and connected with a gas measuring tube by means of a long capillary tube. This tube is protected by means of a double walled iron tube cooled by a stream of running water. The capacity of the bulb having been determined, the amount of air expelled from it when it is introduced into the furnace furnishes the data necessary for calculating, approximately, the temperature. The apparatus was used successfully at 650° C. but for higher temperatures a porcelain bulb would be required.

THE ELECTRICAL OXIDATION OF GLYCERIN. By W. E. STONE AND H. N. MCCOY.

[ABSTRACT.]

The oxidation products of glycerine vary according to the means employed. We have made use of the electric current acting upon dilute solutions of glycerine in the hopes of obtaining glyceric aldehyde. The conditions of dilution, strength of current, temperature and conducting mediums have been varied.

The oxidation is less destructive in neutral or alkaline solutions.

A current of .2 to .5 ampere causes a rise in temperature and the appearance of a yellow color if the solution be alkaline.

Acids and sometimes acroleine are formed.

The oxidized solutions reduce Fehling's solution strongly in the cold and give the fuchsin-sulfurous acid reaction for aldehydes.

To a solution which gave strong reactions for glyceric aldehyde was added enough caustic soda to make a 2 per cent. solution in order to induce polymerisation. After standing some days, a pherylhydrazin compound was obtained, which melted at 200°. This indicated the production of glyceric aldehyde and its polymerisation to glucose.

The product of a second oxidation was polymersed and underwent alcoholic fermentation with yeast.

The electric current, therefore, produces some glyceric aldehyde from glycerine, although the amount is small.

On sulphon-phthaleins. By Walter Jones.

Modification of Grandeau's method of determination of humus in soils, By H. A. Huston and W. F. McBride.

The paper discusses the numerous methods proposed and used for determining the total carbon in the soil and for determining the organic matter and shows that none of these methods are entitled to consideration excepting the process of Grandeau. This method, which consists essentially of removing the bases combined with the humic acid by means of hydrochloric acid, subsequent washing with water and extracting on a filter with ammonia water, is compared with a modification of the method in which the preliminary washing with acid and water is the same but, instead of leaching the soil upon the filter with ammonia water, the soil is transferred to a 500 cc. cylinder, treated with 500 cc. of 4% ammonia, allowed to remain in contact with the ammonia for thirty-six hours, with frequent shaking. During the earlier part of the digestion the cylinder is left upon its side, thus exposing a large amount of surface to the solvent; during the last twelve hours of the digestion the cylinder is placed upright,