is to add 1 part of quinia tannate to 100 parts of the extract. A trial with a perfectly neutral extract, prepared by J. D. Riedel, yielded a solution, which had not deposited any sediment after eight days, and which exerted but a very slightly diminished action upon starch. Hager proposed to call this *Extractum malti tannochinatum*.

Extractum malti ferratum, Ferrated malt extract. A formula for this preparation is given by the German Pharmacopeia. It is best prepared by dissolving 2 parts of soluble ferric pyrophosphate in five parts of pure glycerine, and adding it to 93 parts of the extract. The taste of the resulting product is, however, slightly modified, and Hager recommends to use saccharate of iron 3 parts, glycerine 7 parts, and extract 90 parts.—This would be Extractum malti saccharoferratum.

Extractum malti iodatum, Iodized Malt Extract, is a solution of I part of potassium iodide in 10,000 parts [rather dilute! Ed. N. R.] of extract.

Extractum malti pepsinatum, Malt extract with pepsin, is said to be more nutritious than the simple extract, and to be especially valuable in dyspeptic complaints. For this purpose a saccharated pepsin of 50 per cent. is recommended. Two parts of this are rubbed with 5 parts of glycerine, and added to 93 parts of the extract. It is best to prepare this mixture only when wanted.

Extractum malti lupulinatum, Extract of malt with hops, is a preparation made by J. D. Riedel, of Berlin. Although originally intended to be added to weak malt liquors or beers for the purposeof giving "body," it may be used medicinally. It has an agreeable aromatic taste, and is probably a solution of alcoholic extract of hop<sup>5</sup> in extract of malt.

## ACTION OF IMPURE RAIN-WATER ON LEAD PIPES."

BY PAUL SCHWEITZER, PH. D., OF THE UNIVERSITY OF MISSOURI.

The Laboratory of the University is supplied with rain-water, which collects in a tank in the upper part of the Scientific Building, and is carried to the working tables of the students by lead pipes, which are furnished with brass stop-cocks. In using this water for ordinary analytical work—as, for instance, saturating it with sulphhydric acid—it was soon found to be unfit for such purposes, on account of the quantity of metals it had dissolved, after standing in the pipes for only a short time. It is a well-known fact that pure water attacks lead much faster than water containing a certain

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