

MANNA FROM THE PINE FAMILY.

A correspondent of the *Druggists' Circular*, residing in Placer County, California, sent to the editor of that journal some cuttings from cedar and pine, which were covered with a saccharine substance, known in California as "honey dew." It was stated that in some places the trees were quite covered with it, and the question naturally arose whether it was an exudation from the trees, or was deposited from the atmosphere. These queries, together with the specimens, were referred to Professor Thurber, the editor of the *American Agriculturist*, who has returned the following answer :

"I have examined with much interest the specimens from Placer County, Cal., which you kindly sent me, and though I may not be able to favor you 'with an explanation,' I may furnish a few notes of interest to some members, at least, of my former profession. The specimens consist of terminal twigs of two conifers: a pine of the section with ternate leaves (three in a cluster or sheath), but which can not be accurately identified without the cone; and the California White Cedar, *Libocedrus decurrens*. Specimens of both are freely incrustated in a stalactitic manner with a nearly pure white substance. A friend who stood by as I opened the box at once declared them to be fragments of a Christmas tree; you made a similar comparison in your note accompanying them, which shows that the resemblance of the incrustation to candle drippings at once suggests itself. The taste recalls that of manna, and if a fragment is carefully separated, that is not in direct contact with the stem or leaf, it is free from any terebinthinate flavor. It is one of the numerous saccharine exudations classed under the head of *manna*, to indicate a common method of production, rather than identity of chemical characters.

While the manna of commerce is furnished by a species of ash (*Fraxinus Ornus*), similar exudations, more or less valued in the countries where they occur, are produced by trees of widely different families. The *Leguminosæ* and *Rosaceæ*, contain manna-bearing plants; a tamarisk, a cistus, a willow, and one or more oaks, afford similar products; even the genus *Eucalyptus*, of which so much is now expected, has a manna yielding species; with all these very dissimilar plants producing sugary exudations, it is not so surprising that we should find them in a family where they would be least expected, judging from its ordinary "naval store" products—the *Coniferæ* or Pine Family.

Manna from the conifers is, however, no recent thing. The Briancon manna, employed in France early in the last century, is from a conifer, the European Larch, (*Larix Europæa*), and received its name from being collected in the mountains about Briancon, where it is still gathered by the peasants for their own use, though no longer in commerce. It is found in midsummer adhering to the leaves of the