tions may be established by comparing bouillon thus provided with varying amounts of soil with equivalent portions of bouillon, to which varying amounts of standard acid had been added.

Instead of employing ammonifying bacteria for estimating the acid present in soil samples, nitrogen-fixing species of the *Azotobacter* group could be used. It is well known that *Azotobacter* will grow by preference in neutral or slightly alkaline media; hence, mannite solutions could be made up and portions of it treated with varying amounts of soil as described above. After sterilization and cooling, the several portions could be inoculated from some pure culture of *Azotobacter*. At the end of a given length of time, the total nitrogen present could be determined and the amounts fixed used as a guide in measuring the retarding effect of the acid present in the soil sample. In the same way, nitrifying or other bacteria could be utilized for the quantitative estimation of soil acidity. It is expected that the data accumulated by us will be available for publication at an early date.

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AN INTERESTING OLD WEAVING TECHNIC

ON a recent expedition of the American Museum to the Pima-speaking tribes of southern Arizona there was found the remnant of an old technic in basket-work which has almost entirely disappeared from this people.

It is a crude wrapping of a pliable binding element over stiff slats which are arranged in parallels—a wrapped weaving and found with three variations.

It appears on a few old house doors, shelves, cradles and cages in the out-of-the-way villages where the people have still preserved the early mode of construction and it seems the simplest way of uniting stiff slat-like strips by means of a soft pliable binding element.

This binding element was formerly of thong or native string—both occasionally met with now—but more recently it is of White man's rope, strips of cloth or even wire. The slats are generally the smooth, light ribs of the giant cactus Saguara. These are placed in a parallel series, while in the simplest forms of wrapping the binding element passes forward over two slats on the outside, backward over one on the inside and then repeats the process, thus forming a simple wrapped weaving. When greater strength is needed an extra slat is placed perpendicularly across the parallel series and bound to them by each wrap of the binding element, which in more frequent varieties gives an extra turn about each slat. This last technic is known as lattice wrapped weaving.

The possible evolution of the last crude basket technic from the simple process of the tying of twigs and fibers in their latticed house construction is interesting; as well as a similar development of the wrapped weaving from the plain bindings on one type of their cradles.

Indeed the thought suggests itself, might it not be possible that this crude wrapped weaving, because of its great simplicity, was one of the earliest to develop, especially in regions as destitute of suitable basket material as the desert country of the Pima? May not this technic hold a place with the others which lay claim to be the earliest technics—plaiting, with its over and under passing strips; wicker, with its interlacing twigs; wattling, with its twining elements?

Lattice wrapping repeats itself among the wild tribes in a number of the Malaysian Islands in crude traps and baskets, and on the Lower Congo in more refined basket work. Could its distribution through the desert region of America during early times be more closely traced, no doubt, we would find it a frequent technic, for it appears as far south as Mexico in the wagon box of the old ox-cart. A close surface of the same technic also exists to the north among the Pomo, the Nez Perce, the Makah and on some of the old Salish blankets.

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