

in such simple form that they could be readily remembered. Not one in fifty knows these elementary facts. If this exposition is to have the educative value that it is hoped, it must be largely by providing important information in simple form, for no one can remember the endless data and statistics which are here provided, and if they could, the one most important fact of all, that we are fast approaching an utter destruction of our forests, is nowhere mentioned."

"The trouble is just here," quoth the lumberman, "everybody has got to look out for himself, and what's everybody's business is nobody's business, you know. And then some of those fellers that took up tree claims out west, well, I've known 'em many a time to plant their trees and get their land, and then let 'em all die, or sometimes even root 'em up," he added with an amused smile, as if he found the whole matter rather a good joke. "You see, most folks don't look at it as you do; twenty-five years ahead is a long time; we shan't feel the pinch much before that, and then—well"—then, we mentally continued, when, like Samson, our strength has been shorn from us, when our hills are as barren as those of Palestine, and our rivers can no longer turn the factory wheels, when our population has doubled, and the price of wood sextupled, then our children, waiting for a hundred years, and toiling with infinite cost and pains to replace what we have destroyed, may well say, "Thus are the sins of the fathers visited upon the children even unto the third and fourth generations." And Mr. ——— smiled courteously, and said he should think it would be a good plan if something could be done about it.

LUCIA TRUE AMES.

Boston, Mass

THE USES OF THE LITTER BY SPARROWS.

[Editor *Science*: The following incident observed by my step-son, twelve years old, may be of interest in connection with the mooted question regarding the use of tools, utensils and weapons by the lower animals.

MERWIN-MARIE SNELL.]

A few days ago, as I was walking along the street near

a little park, I saw a sparrow lying upon the ground. It fluttered its wings, but was unable to rise.

As I was looking, a pair of old birds came along carrying between them a little bare twig about three inches long. One had hold of one end of it, and its companion had hold of the other. They brought it down to the bird on the ground, and it caught hold of the stick with its beak.

Then they flew up again into a tree, carrying the third bird hanging to the stick, and by this means brought it to a place of safety.

I am not sure that the bird on the ground was a young one; it looked quite large and may have been wounded or sick. It was not able to fly, anyway, for I saw it try to do so without success. All the birds were common English sparrows.

E. STANLEY SPRAGUE.

Chicago, Ill., Aug. 7, 1893.

SPACE RELATION OF NUMBERS.

MR. MARTIN'S association of the natural series of numbers with a diagram in space is by no means unusual. As I have a similar association myself I have been interested in the accounts published from time to time by people, most of whom imagine their experiences to be unique. There must by this time be quite a literature of the subject, though I do not know whether any one has kept track of it. I should say, however, that most persons having a strong sense of locality would be apt to associate, not only the series of numbers but also any other series, such as the months of the year or the days of the week, with a space diagram. In my own case the natural numbers begin at my left hand quite close to me and run in a straight line diagonally in perspective into the distance towards the right. Beyond one hundred I can scarcely see them, however. The months of the year are similarly arranged save that the current month is always close to me. Most other series have some sort of space arrangement, the kings of England, for instance, beginning at a distance, and running in a very eccentric curved and zizzag line, finishing near me. I localize almost everything I memorize or think of deeply.

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