nation was proved to be, with the exception of slight extraneous matter, almost perfectly pure glucose.

The presence of glucose in honey is well known; but a crystallization or separation such as here described appears unknown, in this district at least, and possibly in others as well. Therefore it is that I deem this of sufficient moment to lay before your readers. A few other facts are pertinent. The bees in whose hive the glucose was found have never been artificially fed, nor has any special attention been paid to promote an increase in the yield of honey. Nevertheless, the yield from the hive containing the powder has exceeded, by almost three times, that of any previous year. A sample of the honey will be furnished me, when I propose determining the relative quantity of glucose contained in it, thinking that by that means some light may be thrown on this apparently unique occurrence. SIMON FLEXNER.

Louisville, June 18.

[All honey contains glucose and cellulose in about equal proportions. It is not uncommon for honey to granulate or crystallize in the comb. This crystallization often occurs when the cells are but partly full of honey, so that the granulated sugar only occupies a part of the cell. If such combs are placed in a hive, the bees will add honey, and produce the phenomenon noticed, and described above. There is nothing remarkable or very exceptional in this occurrence, though it occurs so rarely that it is not strange that most apiarists have failed to observe it. — ED.]

North-eastern and north-western Indian implements.

In reply to a note contained in *Science*, iii. 701, I beg leave to explain that Dr. Abbott misapprehends the object of the paper there discussed, my point of view therein having been that of an observer simply, not that of a critic. The particular puk-gah-mah-gun in question received description and illustration in virtue of the definite facts, that it represents the stone age of the north-west, that it is a well finished and mounted typical weapon, that it is of known tribal origin and of ascertained uses, and that, finally, it has an interesting and assured history. If my brief notice of this weapon ignored the diversity of figure found among objects of the war-club pattern, it was partly because I had undertaken to present my notes in a condensed form, and partly, also, because I believed such modification of common type generally understood by those who would be likely to honor me with a reading. I venture in this place to append one or two statements which may, perhaps, have the effect to place matters in a clear light.

The Ojibwas of Red Lake originally descended thither from Rainy Lake, their primary point of departure having been the 'Great Ojibwa,' or Lake Superior, where their tribe claims to have been centralized for ages. The Red-Lakers agree that they effected settlement here about a century ago, after a desperate struggle of long duration with the Sioux, who then inhabited the region; and they impute their eventual success, not so much to superior prowess, as to the fact that the Ojibwas fought with weapons procured from French traders at the north, while the more isolated Sioux were restricted to war implements of their own manufacture. The Red Lake band continued in the stone age, so far as their domestic furnishings were concerned, long after they had discarded their tribal weapons of stone and bone. As they are by no means addicted to nice culinary distinctions, it occurred to me, in the course of investigation, that the bone-breakers, being adapted to deal an effective blow, might, at the early day preceding contact with white traders, have served their owners the double purpose of utensil and weapon; that, in short, the objects used only within historic times for breaking up the bones of game might likewise have been employed prior to such time in dealings with their foe. This conjecture determined the particular line of inquiry which I followed in questioning the natives, and which was without positive results always. The matter would be unworthy of mention here, except for the purpose of correcting a misconstruction. FRANC E. BABBITT.

What's in a name?

It is a pleasant diversion to note the correspondences between people's names and occupations. Here, for instance, are the Meisels, German lithographers; and *meissel* is the German word for chisel, a cutting instrument. Wagner, the inventor of the palace-car, learned the wagon-maker's trade, and subsequently built his railroad-wagon; while his rival, George Pullman, justifies his name by pulling his fellow-men about the world in very sumptuous railroad-coaches.

Turning to the New-York directory, you see, that, out of the 204 Wagners there set down, 10 are in some way concerned with the making or sale of wagons. Out of 132 Carpenters, 17 are either carpenters or builders, or dealers in wagon-materials. Of 1,174 Schmids, Smidts, Schmiedes, Schmidts, Schmitts, and Smiths in New York, 202 are men who use edged tools for the cutting of wood or iron, including blacksmiths, goldsmiths, cabinet-makers, carpenters, etc.: a large number, not included in the 202, are shoemakers and tailors; but these can hardly be called smiths or artificers.

In the Boston directory, out of 336 Clarks (only a small fraction of the whole), 63 are either store-clerks or religious clerics, or engaged in pen-work of some kind. There are 420 Schneiders (or cutters) in New York, and 29 of them are tailors; but of the 91 Sneiders, Sniders, and Snyders, there is not one tailor, and only two cutters of any sort; namely, a cap-maker and a dressmaker. It would seem that the Sniders, in mixing English blood with their own, and trying new fortunes in foreign lands, had got farther away from the instincts of the original trade that gave their German ancestors their name. It certainly seems that it is safe, looking at the data given, to assume that the hereditary tendencies denoted by the name are in many cases marvellously persistent. I have no doubt, that, notwithstanding the continual mingling of new blood (by marriage) with that of each class of tradesmen, we should yet find, if we could know the bent of mind of all members of the class, that the ancestral preferences and aptitudes exist in some degree in each and all. It is to be remembered, that, in the case of such names as Carpenter and Schneider, there would be a more or less strong disinclination for the owners to engage respectively in carpentry and tailoring, owing to the dislike of having to endure the lifelong punning on their names.

All that can be shown is, that, in the case of a certain number (say, one-sixth) of the members of a family or clan, the ancestral occupation reveals its pristine attraction. But the exceptions are notable. Thackeray's ancestors, according to Bardsley, were thatchers (thack, thatch, hence the thacker, and the last modified into the thackery, the thackeray, i.e., the thatcher). Shakeshaft, Shakspeare, Breakspear, from their prowess in battle; Spencer, he who has charge of the spence, or buttery; Whittier, from

white-tawier (the verb 'to taw' meaning to dress the lighter skins of goats and kids, and then whiten them for the glover's use); Stoddard, the stot-herd, or bullock-herd, or herdsman; Palfrey, the farmer who rides his palfrey to market, — here, in the case of well-known persons, we have instances of wide departure of descendants from the trade of their ancestors. W. S. KENNEDY.

A muskrat with a round tail.

It has generally been considered that the compressed, rudder-like tail, and large webbed hind-feet and bent toes, of the muskrat, form its essential distinguishing peculiarities: my surprise was therefore great to find among some specimens recently received from Mr. William Wittfeld of Georgiana, Fla., an animal, which, though resembling an ordinary muskrat in general appearance, possessed neither of these characteristics. It looked, indeed, like an overgrown and dropsical house-rat, and was at first entered in the catalogue by my assistant as a doubtful species of that genus. Its form also suggested that of a pouched rat (Thomomys), but unfortunately there were no pouches. An examination of the skull at once dismissed these erroneous notions, and revealed the true character of the animal. It is, without doubt, a living link binding the muskrat we know so well with the field-mouse. In size it stands between the two. Its eyes, ears, and fore-feet are those of a muskrat; but its tail and hind-feet are those of a field-mouse. I have not yet received any particulars regarding the habits of this Floridan muskrat; but the slight webbing of its toes, and their unbent condition, taken together with the rounded tail, would lead one to prophesy that it is not so thoroughly aquatic as the ordinary muskrat, probably not more so than many of the field-mice.

The ordinary muskrat has never been found in southern Florida, and it is now apparent that its place is supplied by this little relative. I may go aside to say that Florida probably still holds in its southern interior a number of creatures which the eye of science hath not seen, and which will modify the notions we have regarding those already known. As this is the scientific birth of this interesting little mammal, it is necessary that it should be given a name: I therefore christen it with the name of my friend, Mr. J. A. Allen, whose monographs of the North-American mammals are so well known and so highly esteemed; and it shall hereafter be known as Neofiber Alleni. I may, perhaps, be permitted to conclude by summing up briefly the characters of the species, in order that there may be no mistake regarding the appearance of the animal.

Neofiber Alleni. — General form and color, head, eyes, ears, and fore-legs as in F. zibethicus. Hind-feet not exceeding twice the fore-feet in length, with straight, slightly webbed toes, and naked soles. Tail round, scaled, and sparsely covered with dull-brown hairs. Length of head and body, 20.2 centimetres; tail, 12.7 centimetres; hind-foot (without claws), 3.9 centimetres. FREDERICK W. TRUE.

U. S. national museum, Washington,
June 30.

Fish-remains in the North-American Silurian rocks.

The English Ludlow Rocks have long been known as the lowest horizon from which undoubted remains of fish have been obtained. The 'bone-bed' of this group has yielded several species. The earliest known American fossil fish occur in the lower Devonian beds of Ohio (corniferous) and in the Gaspé sandstones of the Gulf of St. Lawrence.

But some fossils have, during the past year, come into my possession, a glance at which is suggestive of near relationship to the peculiar forms of the English Ludlow Rocks. Close examination has confirmed this opinion, and abundantly proved that fish existed on this continent as early as in England. Indeed, should the whole evidence I have obtained be equally valid, it will sustain the conclusion that we have here more ancient ichthyic forms than any yet known elsewhere.

I have entered a paper on the subject for the approaching meeting of the British association at Montreal, when the facts on which these conclusions rest will be given in detail. E. W. CLAYPOLE.

Buchtel college, Akron, O., July 2.

Babirussa tusks from an Indian grave in British Columbia.

Many curious and unlooked-for objects are frequently found in Indian graves, and not least among these is a pair of the tusks of the Babirussa. They were extracted in August of last year by Mr. James S. Swan from the grave of an old Indian doctor at Kah-te-lay-juk-te-wos Point, near the north-western end of Graham Island, one of the Queen Charlotte Islands, off the coast of British Columbia. The Babirussa, as every one knows, is an animal of the hog tribe, inhabiting only Celebes and the adjacent islands. The question then arises, How did these teeth come into the possession of the Indian doctor, who died some fifty years since at an advanced age?

Mr. Swan suggests an ingenious and plausible solution of the problem. In his letter of the 4th of January to Professor Baird, he writes as follows: "Lieut. Bolles, of the U. S. surveying schooner Ernest, tells me that the Siamese junks make regular trading-voyages to the coast of Africa, even as far as the Cape of Good Hope, running down with the north-east monsoons, and returning when the favorable monsoon blows. They bring products of every kind, and trade with Japan and China. He thinks that some of these junks may have been wrecked, and carried by the Japanese current to the American side, and perhaps cast ashore on the west coast of the Queen Charlotte Islands, where quantities of drift-stuff of every kind is to be found.

"Charles Wolcott Brooks, in his able report on Japanese vessels wrecked in the North Pacific Ocean, read before the Californian academy of sciences, March 1, 1876, says, 'Every junk found adrift or stranded on the coast of North America, or on the Hawaiian or adjacent islands, has, on examination, proved to be Japanese, and no single instance of any Chinese vessel has ever been reported.'

"One of these junks was wrecked on the Queen Charlotte Islands in 1831, and numerous others have been wrecked on other parts of the north-west coast. The tusks of the Babirussa were undoubtedly an article of commerce among a people who would be likely to use them for carving or for manufacturing into fancy articles, and it is not improbable that the tusks in question were procured from some one of these old Japanese wrecks."

It is difficult to conceive of another origin for these tusks. The commerce of California fifty years ago was of a very limited character, and Babirussa tusks are among the objects least likely to have been sent there through any regular channel. F. W. TRUE.

U. S. national museum, Washington, D.C.,
July 3.