Our general system is not only wasteful, and based on false economy, but the quality of milk is not up to a proper standard. As a matter of fact, the milk supplied to New York City is inferior (much of it is unwholesome, and unfit for use) to that of any city in Europe.

The question of still-fed milk is of little moment as compared to milk from so much greater quantity of other and more injurious feed, now in general use, and as compared to the sanitary conditions and treatment of the cows, stables, and milk, and the water the cows consume, — one of the most important elements in dairying. There is not one well in a hundred that furnishes pure water.

Brewers' and glucose grains are shipped into the country by the millions of bushels annually. Brewers' grains are good feed for milch-cows if fed the day they are produced. Glucose grains, with the sulphuric-acid treatment necessary in the factory, are injurious to both cow and milk. These grains are sent into the country wet and hot, fermenting, souring, and spoiling as they go. So the farmers' cows, with every shipment, have feed in a state of fermentation, often rotten, and fit only for the dung-hill. Distillers' slops, as fed, have undergone fermentation, while the grains are fed while fermenting, — a strong point in favor of slops. B. M. W.

New York, Nov. 2.

Microscopic Sections of Corals.

IN *Science*, No. 248, Mr. A. F. Foerste takes exceptions to a note of mine in No. 244, and contends that the internal features of Lower Silurian monticuliporoids are not only of value in classification, but that they are the ones most worthy of study, and of almost sole use. I ask space for a brief reply.

I have, in the first part of a paper on monticuliporoids, given quotations and references showing that even by the new method of work in the corals it is not always possible to separate either species or genera. To state that this method gives 'solidity' to classification, and allows "the species to fall into easily recognized groups," is, I believe, a mistake. Dr. Nicholson, for example, in speaking of two genera, says (*Tabulate Corals*, p. 99), "There is, indeed, no feature in the way of internal construction which could be brought forward as separating *Striatopora* from *Pachypora*; and in distinguishing these two types we have to fall back upon a well-marked external character." The distinctions between *Dekayia* and *Monticulipora* are external, and not internal. Between species there is even less difference. One of Mr. Ulrich's species, for instance, is almost the exact counterpart of another: so here, again, the separation is made on external features.

My examination and study of the descriptions of the genera made by Mr. Ulrich has led me to discard all of them. The features upon which they are based are so few, so trivial, and so inconstant, that it becomes an utter impossibility to separate them with any certainty. I have not had the opportunity of seeing Mr. Ulrich's latest ideas in regard to the subject upon which he has written so much, so that I cannot tell how he may have modified or changed his conclusions. It is my belief, however, that it is impossible for one who studies the descriptions of genera and species as given by Mr. Ulrich to state positively, after he has examined a specimen macroscopically and microscopically, that he has a desired genus or species in hand.

Mr. Foerste lays stress upon the form of the cells as seen in tangential section. The same features are to be seen on the exterior, and are free from errors likely to result from sections made at a slightly different angle from the one intended. "Elevated patches of cells" cannot be recognized in internal sections in *very* many cases, as Mr. Foerste states is the case; for these are often of the same size and shape as surrounding cells. It were useless to deny the difficulty of finding specimens suitable for description. In many cases it were best had they not been described at all.

Finally, in relation to the difficulty of studying microscopic characters, I have but this to say: that it is not the difficulty itself or alone, but the unreliability of the work. I would be the last one to discard a method of work simply because it was difficult. But when it becomes difficult (and there can be no denying this, in spite of the assertion to the contrary), tedious, and uncertain, and when finally we are compelled to fall back upon external features because the internal ones fail, I contend that their use for ordinary practical work in the field or in the study is of little or no value. I can quote no higher authority than Mr. Archibald Geikie (*Text-Book of Geology*, pp. 85–88, where elaborate directions are given for making rock sections; Professor Prestwich also considers it "an expensive and tedious process," *Geology*, i. p. 43) as to the tediousness of the process, nor a better one than Dr. Nicholson as to the uncertainty of the results (*Palæozoic Tabulate Corals*, and *The Genus Monticulipora*). In conclusion, I can only refer to the paper on the subject by Mr. U. P. James and myself, for the full expression of my views, and I shall be happy to furnish a copy of the paper to any of those desirous of seeing these views in full for their own satisfaction.

JOSEPH F. JAMES.

Miami University, Oxford, O., Nov. 7.

Indian Names.

THE publication of the 'Early Map of the Far West,' in your last issue (*Science*, x. No. 248) gives occasion to draw attention to the changes in pronunciation which have been brought about by pedagogic conceit. 'Arkansaw' or 'Arcansaw,' of Lewis's map, gives the old pronunciation. 'Chipaway' of Lewis's map gives the true pronunciation of 'Chippewa.' 'Ojibwa' is the same word, and is pronounced 'Ojibway.' The pronunciation of 'Kansas' has not changed. It is given as 'Kanzas' in Lewis's map, and 'Canzes' in the map of Louisiana by De L'Isle, eighteenth century. 'Iowa' has suffered much from the pedagogues. The polite pronunciation now is 'I-o-wah,' with the accent on the first or second syllable. The old pronunciation was 'I-o-way,' accent on the last syllable. In Lewis's map the word is found as 'Ayauwais;' in De L'Isle's map, as 'Aiaouez' or 'Yoways.' 'Euisconsin' (Wisconsin) has fortunately remained unchanged; so has 'Pani,' which we now spell 'Pawnee.'

I once met an Indian who called himself a 'Taw-wah,' accent on first syllable. Unable to recall a tribe of such name, I had him repeat the word several times, and at length discovered an almost silent vowel before the *T*. It is Ottawa. I am not sure, however, whether this man pronounced his tribal name correctly, for he had long lived among the whites, and had gone to school. I find that tribe's name in Jeffery's map of Louisiana and Canada, 1762, given as 'Outawais,' where the final syllable is 'way.'

JOSEPH D. WILSON.

Chicago, Nov. 8.

The Temperature Sense.

IT may be interesting to those who have been acquainted with the experiments of Goldscheider, and of Dr. Donaldson and Prof. G. Stanley Hall in Johns Hopkins University, to prove the existence of a separate system of nerves for temperature, to know that the discovery was anticipated by Sir. William Hamilton. His observations of psychological phenomena seem to have been nearly as extensive as his philosophic reading. In his edition of Thomas Reid's works (vol. ii. p. 875), after commenting on a singular and exceptional case of paralysis, in which sensations of touch did not seem to be localized, he takes the occasion to hazard the conjecture, based upon observations of his own, that there is a distinct set of nerves for sensation of temperature. His language is, —

"I may notice also another problem, the solution of which ought to engage the attention of those who have the means of observation in their power. Is the sensation of heat dependent upon a peculiar set of nerves? This to me seems probable, (1) because certain sentient parts of the body are insensible to this feeling, and (2) because I have met with cases recorded, in which, while sensibility in general was abolished, the sensibility to heat remained apparently undiminished." J. H. HYSLOP.

Baltimore, Md., Nov. 10.

Answers.

16. PENNSYLVANIA POT-HOLES. — Described in Report Z, Geological Survey of Pennsylvania, p. 111, footnote, by Professor Lesley; also in the *Scranton Republican* of Nov. 4, 1887.

JOHN C. BRANNER.

Little Rock, Ark., Nov. 7.