

Sept. 29 to Oct. 1 the rows were cut and husked, and the stalks and ears weighed and counted, with the following results:—

	Aggregate Yield.		Comparative Yield.	
	Tassels left on.	Tassels removed.	Tassels left on.	Tassels removed.
Number of good ears.....	1551	2338	100	151
Number of poor ears.....	628	885	100	141
Number of abortive ears.....	2566	951	100	37
Total number of ears.....	4745	4174	100	88
Weight of merchantable corn (pounds).....	710	1078	100	152
Weight of poor corn (pounds).....	130	187	100	144
Number of stalks.....	4186	4228	100	101
100 stalks weighed (pounds).....	82	79	100	96

It will thus be seen that the number of good ears and the weight of merchantable corn were both a little more than fifty per cent greater on the rows from which the tassels were removed than upon those upon which the tassels were left. This is not only true of the two sets of rows as a whole, but with the individual rows as well. In no case did a row upon which the tassels were left produce anywhere near as much as the tasselled rows on either side of it. In fact, the results given above are really the aggregate results of twenty-four distinct duplicate experiments, each of which alone showed the same thing as the aggregate of all.

By abortive ears is meant those sets that made only a bunch of husks, and sometimes a small cob, but no grain. It will be noticed that they were by far the most numerous on those rows from which the tassels were not removed. It will also be noticed that the total of the good, poor, and abortive ears is about fourteen per cent greater on the rows on which the tassels were left, while the weight of merchantable corn is more than fifty per cent greater on those rows from which the tassels were removed.

HEALTH MATTERS.

Action of an Infusion of Coffee on Bacteria.

In studying the germicidal action of coffee, Dr. Luderitz made use of infusions of different degrees of concentration, varying from five to thirty grains of coffee to ten cubic centimetres of water. According to *The Sanitary News*, he mixed from four to six drops of pure culture-broth with eight to ten cubic centimetres of this infusion, and at the end of a certain time he withdrew parts of this mixture and cultivated them in gelatine. Experiment showed that the micrococcus prodigiosus dies in a ten-per-cent infusion of coffee in from three to five days, the bacillus of typhus in from one to three days, the proteus vulgaris in from two to four days, the staphylococcus aureus in from four to seven days, the streptococcus of erysipelas in one day, the bacillus of cholera in from three to four hours, the bacillus of anthrax in from two to three hours, and the spores of anthrax in from two to four weeks. In a thirty-per-cent infusion of coffee the typhus bacillus dies in one day, the staphylococcus aureus in from one to three days, the bacillus of cholera in from half an hour to two hours, the bacillus of anthrax in two hours, the spores of anthrax in from two to four weeks. In a second series of experiments Luderitz studied the influence of an infusion of coffee mixed with gelatine on the development of bacteria. These experiments showed that the micrococcus prodigiosus does not vegetate in gelatine containing from three to nine per cent of coffee, the bacillus of typhus in gelatine

with three per cent of coffee, the proteus vulgaris with from five to nine per cent, the staphylococcus aureus with two per cent, the streptococcus of erysipelas with one per cent, the cholera bacillus with one, and the bacillus of anthrax with 0.6 per cent. The action is the same for the different qualities of coffee, and is due, not to the caffeine, but to the products of the roasting of the coffee.

NOTES AND NEWS.

A FEW more points may be added to what was said on the Etruscan question in *Science*, Feb. 20, p. 99. M. Zanardelli has published, in the last volume of the *Bulletin de la Société d'Anthropologie de Bruxelles* (1890), a paper on the relationship of the Etruscan, Umbrian, and Oscan languages to the modern Italian. So far as the first-named goes, the resemblances are merely phonetic, as in the frequency of syllables ending in vowels. Professor Ferdinando Borsari of Naples has contributed to the last number of the *Rassegna Scientifica* a new study of the famous inscription of Menep phtah (of the nineteenth dynasty), in which the Etruscans, and, as he thinks, the Sicilians and Sardinians, are for the first time mentioned (*Etruschi, Sardi e Siculi nel XIV^o Secolo prima dell'Era volgare*). He does not meet all the objections offered to these identifications, nor does he note the recent suggestions as to the interpretation of the inscription by Dr. Max Müller and others.

—From the annual report of the special committee of the American Society of Civil Engineers, on uniform standard time, we learn that the advantages of the 24 hour notation are beginning to be recognized in various branches of civil life. In hospitals, for example, to prevent mistakes by nurses in the administration of medicine, in recording temperatures, and in other matters, the new system is being gradually introduced; also in weather-tables and in the recording of meteorological readings: indeed, in departments where simplicity of system and accuracy are essential, the new notation is being spontaneously brought into use in many quarters. For two or three years back the Canadian Almanac has abandoned the old notation and substituted the new. It is in connection with railway service, however, that the general introduction of the 24-hour notation may mainly be looked for.

—The notion that the Welsh had in pre-Columbian times some knowledge of the American continent has for centuries found advocates, but never a competent critic. The latest is B F. de Costa, who reprints from the *New England Historical and Genealogical Register* of January, 1891, his article on "The Pre-Columbian Voyages of the Welsh to America." He complains that the accounts of the alleged voyages of the Welsh to America about 1170 have not received the attention they merit; but Mr. De Costa aids little to this end. The passages he quotes are at second-hand and translations, and are eminently vague. They tell us at most that some sea-rover Madoc (there were many Madocs) found land in the West, and settled there. But both the date of this occurrence, and any definite information as to the land, are wanting. Why not print the originals, with a discussion of their sources? We are the more inclined to require this from a writer who dares the misleading statement that "the ancient literature of the Welsh carries us back to a period before the Christian era."

—In the "Report of the Lightning-Rod Conference" (London and New York, Spon, 1882), on p. 62, we read, "On the 13th June, 1854, the 'Jupiter' was struck by lightning. The conductors were in place; that of the mainmast which was struck went 2 metres (6 feet 6 inches) into the sea, and had at its end a ball 2 kilos in weight. After being struck the conductor had disappeared and the pieces of it were scattered everywhere." Further on, the report states that "the 'Jupiter' received no damage." There are a large number of cases on record in which the conductor is reported as destroyed or even dissipated, and yet no damage (always with the proviso noted below) occurred to the buildings or ships to which the conductors were attached. Generally it is stated that this fortunate result was in spite of the de-