

The Alexandra Orphanage.

The arrangements for the infant orphanage, of which the foundation stone was recently laid by the Duchess of Sutherland, at Hornsey-rise, are very different from those existing in similar institutions, in England. There will be a large central building, comprising the schools, dining-hall, domestic offices, the laundry, etc. There will then be built, in pairs, separate houses, each to accommodate 25 infants, placed under the care of competent nurses, who will have the entire charge of them from their rising in the morning, until they retire to rest, with the exception of the time they are under instruction. These separate houses will be connected by a covered way with the central buildings, which in winter will be enclosed. To each house there will be a district play-ground for the twenty-five orphans.

The Cost of Artificial Light.

Prof. Edward Frankland has recently delivered a course of lectures before the Royal Institution of Great Britain, and from his sixth lecture we extract the following table. The prices in the original are given in shillings and pence, and these we have reduced to dollars and cents by assuming one penny as equal to three cents:—

COMPARATIVE COST of the Light of 20 Sperm Candles, each burning for 10 hours, at the rate of 120 grains per hour.

Wax.....	\$2 59	Cannel Gas	\$0 09
Spermuceti	2 40	Paraffin	1 38
Tallow	96	Paraffin Oil	18
Sperm Oil.....	66	Petroleum.....	23
Coal Gas	12½		

This table is based on the commercial rates of London. But the American prices are not materially different, and do not show any safe escape from the tyranny of the gas companies.—*Scientific American.*

Poultry Manure.

As has often been said, more care should be taken in economizing the manure of the poultry-house and hen-roost. Geyerlin says on this point:—In France, most eminent chemists have proved by analysis that poultry manure is a most valuable fertilizer, and yet, for want of a proper system in housing poultry, it has as yet not been rendered available to rural economy. The celebrated Vanquelin says that when the value of manures are considered in relation to the amount of azote they contain, the poultry manure is one of the most active; and when, as a means of comparison, the following manures are taken, in parts of 1000, it will be found that:

Horse Manure contains,	4.0 parts of azote
Guano as imported,	49.7 “
Guano when sifted of vegetables and stones,...	53.9 “
Poultry Manure.....	83.0 “

Burning Tar for Caterpillars.

A friend of mine, a year or so since, discovered by accident, while burning coal tar, that the boiling, or burning of it under trees infested with caterpillars would kill the last one of them. The trees near the boiling or burning tar (I saw them myself) were literally covered with caterpillars, and

every one fell and died under the trees. If the tar be put into a long handled frying pan, and set on fire, it could be carried from tree to tree, and kept under each tree until the desired end is accomplished. This hint to fruit growers should be sufficient.—I. I. HIRE, in *Va. Farmer.*

Summary.

London, (England,) has a voluntary *Street Reform Society*, which “collects facts, expose abuses, agitate reforms, enforce and improve existing regulations, and take a general oversight of street arrangements, vehicles, traffic and sanitary matters;” an excellent institution for any city, town, or village.—Cryolite, the mineral from which the new metal *aluminium* is most easily reduced abounds in Greenland, which now supplies most of this metal to the arts.—Scientific chemists and experimenters, and all well informed sanitary officers now agree that saturated solutions of copperas, and carbolic acid, are at once the best and cheapest disinfectants that can be used against cholera.—A Yankee has invented a sheep shearing machine which operates just like a reaper or mower, and would mow a swath of wool an inch and a half wide. The motion is got by means of a little wind engine in the handle, which is to be driven by a force-pump or bellows forcing wind into it through a flexible tube.—M. Soret has proved the density of ozone to be one and a half times that of oxygen, by the test of diffusion, the relative velocities of which correspond to the theoretical calculation of the assumption of the above proportion; as well as by comparisons of volume, in which it is found that by converting ozone into oxygen, its volume is increased one half.—A mill was lately set on fire in Philadelphia, by the engineer attempting to temper a spring, by plunging it red hot into a can of lubricating oil. —The latest experiment in pisciculture has been the raising of the salmon in the river Derwent. Three years since the first batch of salmon ova arrived on those shores, having been transported sixteen thousand miles on ice. After this protracted journey the fish hatched from the ova, were turned out into the river, and now the inhabitants are rejoicing over a fine run of veritable salmon.—The artesian wells sunk five years ago at Smyrna, by English workmen, have been so much appreciated that the inhabitants have themselves since made numbers of them in the neighbourhood.—A gentleman of many years experience in Australia, states that gold has been found in fourteen different places in the Highlands of Scotland. He also found lead, copper, silver, and other ores.—The human voice, when speaking with clear articulation, and supplied with good lungs, will fill 400,000 cubic feet of air, provided they be enclosed in a proper manner, and the voice be placed and directed advantageously. The same voice singing can fill with equal facility 600,000 cubic feet.—The new Royal Albert Hall will be eight times the size of Westminster Hall.—The Chief Secretary of Ireland, owns a fine ostrich, which recently laid an egg. The following telegram was sent to him by his steward: “My lord, as your Lordship is out of the country, I have procured the biggest goose I could find to sit on the ostrich’s egg.”—Hungary has adopted the decimal system of coinage.